Etch
Ohio State
4-8-1931

THE OHIO

MEDICAL AND SURGICAL JOURNAL.

Vol. 9. Columbus, September 1, 1856. No. 1.

PART FIRST.

ORIGINAL COMMUNICATIONS.

ART. I.—*A Case of Carcinoma, involving the Stomach and Liver, &c., with Clinical Observations.*

I was called upon, during the past month, to make a post mortem examination in the following interesting case, at the request of the physician who had been in attendance. Before describing the pathological appearances, it may not be uninteresting to allude to a few of the leading features of the disease in its progress, as I have gained them. They must necessarily be very brief and meagre.

A. B., a married man, aged about 45 years, dated the commencement of his illness from an injury received a year since, in the epigastric region, from a fall. About that time he began to complain of pains of a lancinating character in the epigastric and right hypochondriac regions, want of appetite and frequent vomitings, and shortly afterwards noticed a swelling which, beginning apparently in the epigastrium, soon occupied that region entirely and the right hypochondrium. During this time the pains were not constant, but he was scarcely ever free from a sensation of uneasines about the stomach. He would have paroxysms of severe pain, which sometimes were of short duration, but as often would continue several hours. Emaciation began at an early period of the disease and progressed steadily until death. Towards the last, vomiting was a more frequent symptom, so much so that only very little food was retained, and the pain after eating increased in intensity. The

vomited matter consisted (beside the indigested food) of green and dark colored fluids, sometimes mixed, sometimes separate. The pulse was frequent, small, and wiry, and a disposition to constipation was a prominent symptom throughout the course of the disease. The skin was cool, but assumed that peculiar dirty greenish-yellow color which has been often said to denote the malignant cachexy. The tumefaction increased rapidly until death.

The body was examined fourteen hours after death, in the presence of several physicians, and the following pathological conditions were noted. There was no very great rigidity. The color of the skin, as above mentioned, remained evident all over the body. The back and dependent parts somewhat discolored by gravitation. There was also slight œdema of the legs and feet. The body was generally emaciated and the muscles attenuated and flabby. The face still retained an expression of suffering, but there was no great contortion. Even upon external inspection, the abdomen appeared enlarged by an accumulation of fluid and by a tumor which could be seen and felt, occupying the epigastric and right hypochondriac regions. The thorax was well formed and natural in appearance.

An incision was made extending from the superior extremity of the sternum to the pubis. The thorax was first examined. The *pleura* on the right side was normal, with the exception of a few small, hard bodies of a yellowish color, about the size of No. 4 shot, found immediately beneath its pulmonary surface and adherent thereto. On the left side there were several adhesions of considerable extent, evidently of long standing. The *lungs* were slightly œdematous at their apices; probably post mortem. In the apex of the left there were a few calcareous cicatrices. At the base of the right lung, the yellow tubercular corpuscles were again seen, as before, immediately below the pleural covering. In other respects, the pulmonary textures presented a normal appearance. The *heart* and vessels were natural in size and position, and its membranes healthy. These were not further examined. The *diaphragm* had upon its inferior surface a number of small bodies resembling those found in connection with the pleura. They were situated all together, on the right side, over the liver. The great *omentum* was adherent to the walls of the abdomen throughout its whole extent. A considerable quantity, a little more than three pints in all, of sanguineo-serous fluid was contained in the cavity of the abdomen. The intestinal

peritonæum was healthy, nor indeed were there any signs of recent inflammation throughout the whole extent of that membrane.

The *liver* was found to be much enlarged, occupying the entire right hypochondriac and epigastric regions, and weighing about ten pounds. Its exterior was of a lighter color than natural and studded over with light yellow tumors, varying in size from that of a split pea to that of a dollar. On the superior and anterior surface of the right lobe, was a coagulum of small size, apparently of recent date, resting over two small apertures, in the peritonæal coat, from which the blood had evidently proceeded. There were no abnormal adhesions superiorly. The ligaments were somewhat lengthened, otherwise normal. Inferiorly there were adhesions with the pyloric extremity of the stomach, pancreas and transverse colon, so firm as to render separation difficult. On cutting into the right lobe, after removal from the body, the normal structure was found to be almost entirely destroyed and replaced by cerebriform masses, contained in membranous cysts, forming tumors of various sizes, the largest probably as large as a walnut, and also by collections of dark fœtid pus, which occupied cavities at some points and at others was infiltrated through large portions of the organ without any definite boundary. The left and lesser lobes presented the same appearances in a less degree, although no part of the structure seemed to be free from the disease. Near the neck of the gall bladder was a thin cyst the size of a pigeon's egg, at first mistaken for the gall-bladder changed and contracted, containing a greenish fluid of the consistency of serum. This appeared to have no connection with the gall-bladder or its duct. The *gall-bladder* was in its normal position, of proper size, dark colored and contained a small quantity of very dark bile. On its internal surface was a coating of carbonaceous deposit.

The *stomach* was contracted and pale, somewhat drawn to the right, and firmly adherent to the liver, pancreas and colon. It was surrounded by much fat, particularly toward its cardiac extremity. About two-thirds of its extent from the cardiac toward the pyloric orifice it appeared pale and flabby, but bore no mark of disease, with the exception of an abrasion or rather a slit in the mucous membrane, near the centre of the grand *cul de sac*, which appeared as if it had been made accidentally during the examination. The remaining portion, toward the pylorus was pale but much thickened, the walls being from half to three quarters of an inch through, and were hard, almost like cartilage under the knife. The mucous

membrane was thickened and ecchymosed in spots, and on the posterior wall, near the pylorus, which was much contracted and its valves almost destroyed, there was an ulcer, as large as half a dollar, which had perforated the coats of the stomach, forming an opening through which the contents of the organ were only prevented from escaping into the abdominal cavity by the adhesions surrounding it, formed with the pancreas and parts adjacent. The edges of the ulcer were elevated and ragged, and the mucous membrane surrounding it was roughened, ecchymosed and abraded in various places. The usual puckering was seen in the vicinity. The *duodenum* appeared unaffected. The *pancreas* was involved in the general cancerous degeneration. The *colon* was contracted and adherent, as before mentioned, in its transverse portion, but seemingly was not otherwise affected. The *mesenteric glands* were enlarged, and some of them softened, others again only indurated. The *small intestines* and other viscera were healthy. Brain was not examined. Portions of the diseased tissues were submitted to the microscope. The following report thereof is furnished by Dr. GUNDRY, who, with myself, made the necessary examination.

"*Microscopic Examination.*—An incision was made into the portion of the stomach handed to me, comprising the pyloric end of that viscus, including a well marked and extensive ulceration with a central perforation. From the freshly cut surface there exuded the peculiar milky fluid, (the so-called *cancer juice.*) Various specimens from this and other incisions were examined under a good quarter inch object glass, with the following results: The field was occupied by numerous cells, granular matter, free nuclei, and globules, the last being of flat, floating in an homogeneous viscid fluid. The cells were by no means uniform in their form and size, quite unconnected with each other, and floating freely in the containing fluid. The edges of these cells are uneven, none of them forming straight lines. Both simple and compound varieties were present, the latter, however, being comparatively rare. As regards form, the polygonal or ovoid cell decidedly preponderated, though there were many of the *caudate* or *fusiform* variety, (formerly considered the true cancer cell.) These cells had nuclei also differing from each other in shape and size, though always large in comparison with the cell which contained them. The *nucleoli* within these latter were in no one position. Their various position within their respective nuclei—their comparative large size, the want of uniformity in the number

within each nucleus, and the pearl like brilliancy produced by a slight change of the focus and light, all of which were distinctly observed, are somewhat characteristic of the cancerous structures. There were also large numbers of free *nuclei*, differing from each other in size and shape, but containing one or more nucleoli as already described. Numberless granules were also observed dotting over the field, obscuring to some extent the other formations. The addition of acetic acid, cleared up the field making the cell, wall, and the nuclei more transparent without affecting the nucleoli. Many specimens of the milk-like fluid were examined in the same manner with similar results.

"A thin section of the wall, near the ulcer, was placed under a lower power. The celular bodies, already described, were numerously distributed throughout the specimen, apparently entangled in the meshes of a *fibrous* stroma. This latter consisted probably of both kinds of fibre: acetic acid rendered the field clearer, making the white fibre transparent, and leaving the yellow in view. The cells and nuclei have no connection with the fibrous element, and do not form any distinct laminæ. The surface of the ulceration was scraped with a knife. The fluid thus obtained yielded the same results as that previously described.

"The mucus membrane did not seem to be involved. In some places it was slightly thickened. Round the ulcer the epithelium was destroyed.

"The microscopic character of the portion of the *liver* examined, resembled the pyloric tissues in its elementary constituents. The hepatic tissue was replaced by encephaloid matter. The cells, as was to be expected, were more abundant and generally larger, and bore a much greater proportion to the fibrous stroma than was the case in the gastric variety. The puriform matter which was somewhat fœtid, consisted principally of cells and nuclei in their usual variety of forms, but more generally in a state of more or less disintegration. Broken down blood discs and pus globules were also mixed up with them, together with a great abundance of granular matter.

"A slightly enlarged mesenteric gland was also found to be studded with multi-nuclear cells throughout its parenchyma.

"In the examination of these structures, we derived assistance from the employment of the polariscope, in addition to other means.

The slight inequalities of surface, and delicate markings, are thus rendered more distinct to the eye than when viewed by simple illumination. Its more general use in the investigation of both normal and abnormal tissues, would doubtless lead to some valuable results.

"A question naturally arises, are the appearances thus gained sure evidence of the existence of carcinomatous disease? Taken in connection with the testimony derived from other sources, the appearance to the naked eye of a hard, yellowish white, striated, thickening of the pylorus, exuding a thick milky fluid when cut, there is little room for doubt. The hard scirrhous thickening of this organ, with the comparatively soft encephaloid matter from the liver differing widely in many prominent characteristics, are found to possess identically the same elements, though in varying proportions, and adapting themselves to the organs and tissues in which these elements may become developed. Thus, in this case, the same general disease diffusing itself in various organs takes on apparently very different local manifestations, being soft and easily broken down in one place, yet of almost stony hardness in another situation. While, therefore, the microscope is not to be relied upon to the exclusion of other means of diagnosis, it yet offords valuable aid by no means to be overlooked. It is to assist, not to supersede the eye and finger of the pathologist. With regard to the determination of a cancerous affection, no single element can be relied upon as characteristic, whether it be sought for in the nature of the cells, the matrix or the arrangement of the elementary constituents. It is only by a careful observation and comparison of the collective appearances the microscope reveals that a decision can be arrived at. This again must not be disconnected with the symptoms derivable from the more general examination. Moreover, the appearances seen under the microscope, may not only occasionally mislead, unless great care is employed, but it has also happened to some of the best pathologists, to search without success for the usual microscopical appearances of cancer, when other more general signs and the subsequent history of the case have determined the tumor in question to be cancerous in its nature. As a general rule, it may be stated, *that a morbid growth from whose cut surface a milky fluid can be pressed, which the microscope resolves into multi-nuclear cells of various forms and size, and a section of which consists of similar cells in a mesh of fibrous stroma* may be regarded as cancerous. And, the variations of

the arrangement and proportions of these elements depend altogether upon the localities in which they form their habitat, and develope themselves, and give rise to the various names by which the different manifestations of this disease have been described. In the present case, the history, the physical characters of the various forms in which the disease appeared, together with the microscopic evidence can leave no reasonable doubt upon the matter."

This case suggests several interesting inquiries. The cause of malignant growths like that of scrofula and some other diseases is involved in obscurity. We say that cancer is a constitutional affection, sometimes hereditary, sometimes accidental, and often we can go no further. At times, it can apparently be traced to a blow or other cause of irritation, but neither injury nor irritation, however long kept up, would be likely to produce such growths in a constitution not already predisposed to them, although no proof of such predisposition be apparent. Until further light is thrown on the subject, we must be content to quietly assert that it arises "from a perversion of nutrition."

The compartive frequency of malignant affections is of interest. They are undoubtedly less frequent than any other class of diseases so widely known. They have been known from the earliest authentic dates, and do not appear to have increased in their frequency. Neither have their habits changed with regard to the organs attacked by them. Cancer of the breast seems to have been as common two hundred years since as now, and persons of the same age and habits die of these affections at the present date as died then.

Neither season, climate nor locality seem to have any great influence in preventing or producing these growths. They are found in all parts of the world where man has found a habitation, and seem to observe the same rules every where. Civilized man appears more obnoxious to them than the savage, but it is perhaps because his habits are more favorable to the production of that state of the system in which the latent predisposition acts with greatest energy. Besides he is longer lived, and, therefore, according to the best authorities more liable.

Like tubercle, they have never shown a disposition to become epidemic, but unlike the vice above named, they can never be strictly called endemic.

Since the first knowledge of cancer, certain organs have been known to be more frequently affected by it than others, and of these

the uterus, is said by the authorities, to be that most frequently attacked. The stomach comes next, the mammary gland third, and the liver fourth.

In each, it partakes in structure somewhat of the nature of the tissue which it destroys. Thus, in the stomach, it is usually fibrous, in the liver encephaloid, &c. Its progress is much influenced by its situation. In dense structures it is often very slow, while in some of the larger glands, and in the brain it is fearfully rapid.

When the stomach is attacked, the pylorus is its most frequent seat, the great cul de sac next, and the curvatures last. When perforation of the gastric walls occurs, the posterior is that usually perforated, but this is not universal, for the writer made an examination of the body of a man in 1853, who died suddenly with the symptoms of acute peritonitis, after having been long ill, evidently with cancer of the stomach, and found the whole pyloric extremity of the stomach cancerous, and a perforation in its anterior surface.

The symptoms of cancer are every where, in the beginning, rather obscure. This is particularly the case when the stomach or liver is attacked. Indeed, in cancer of the stomach, which organ is generally primarily effected, there are no characteristic symptoms in the beginning. A patient will have prescriptions given him for dyspepsia, acidity, gastralgia, &c., and it is not until he or his physician discovers a tumor in the epigastrium, emaciation sets in, or he vomits characteristic matters, that the nature of his trouble is suspected.

The same remarks are true of the disease affecting the liver. Chronic inflammation, spasms of the gall duct, gallstones are prescribed for, until emaciation and tumefaction are apparent, and then he must die.

He who discovers symptoms pathognostic of these troubles, will confer a lasting benefit upon the suffering; for he will be able to relieve if he cannot cure, and will avoid aggravating sufferings, already grievous in the extreme. S. L.

ART. II.— *On Veratrum Viride as a Remedy in Certain Diseases.* By R. S. CONNER, M. D., Sarahsville, Noble county, Ohio.

In the following account of my experience in the use of *Veratrum Viride*, it is not expected to benefit the medical profession to any considerable extent, but simply to call the attention of practising physicians to its use, hoping that we may ere long be furnished with a more complete and full description of this powerful and valuable plant, in connection with its *modus operandi*, than is given in our medical standards. The Ohio Medical and Surgical Journal, of March, 1855, contains Dr. NORWOOD's experience with the tincture of Veratrum Viride. It is there claimed to be decidedly and promptly sedative, controlling with certainty morbid cardiac and arterial action, without necessarily producing nausea or vomiting, when administered at first in small doses. In his paper, he sums up the medical properties of Veratrum Viride as follows :—1. It is acrid in a limited degree. 2. It is deobstruent or alterative, even surpassing this well known property of calomel and iodine. 3. It is expectorant, so prominently so that he deemed it unnecessary to add any other article to promote that action. 4. The author says it is one of the most prompt and reliable diaphoretics belonging to the *materia medica*. 5. It is nervine, not narcotic. 6. It is one of the most certain and efficient emetics known. 7. The most highly prized property attaching to the drug, is that it is an *arterial sedative*, which characteristic well fits it to fill an extensive area in the medical field.

My experience in the use of Norwood's tincture of Veratrum Viride, for the past eighteen months, fully accords with the author's description of its mode of operation. It is not claiming too much for Veratrum, to say that it is one of the best acquisitions to our materia medica which the research of years has produced. It is of late but too common for physicians, and sometimes journalists, to puff new remedies beyond what they merit, and upon their being submitted to an experimental test they quietly sink to an obscurity even below what they really merit—such a fate, I think, lays not in wait for Veratrum. To say that Veratrum Viride is truly a *reliable remedy* to control cardiac and arterial action, in a great majority of inflammatory diseases, is not transcending the truth, nor even that necessary moderation and candor which should ever characterize the therapeutical writer. With regard to the objects contemplated in the use of the remedy, I have realized my most sanguine expec-

tations, and it would suggest itself to me as a great *desideratum*—a remedy that will safely and certainly reduce the action of the heart and arteries without directly expending the circulating fluid. Such a remedy is Veratrum Viride. The fitness of this article in typhoid fever will be apparent when we take into consideration that the great mortality which follows in the wake of this disease, is owing to local inflammation and its consequences in the eliptical patches of glands in the bowels. Without stopping here to discuss the proposition whether the inflammation in question be the direct result of a morbidly increased *vis a tergo* or *vis suctionis vel attractionis*, we will give its mode of action in the prevention of those disastrous consequences referred to. It is probably through the medium of the nervous system that the action of the heart and arteries are reduced by the administration of Veratrum Viride. It is reasonable and philosophical to conclude that where inflammation possesses an organ or tissue, that morbid action will be much influenced by the action of the heart and arteries, and that the subsequent local inflammation will be controlled in proportion as we control the cardiac and arterial action. If the *vis a tergo* or force from behind be active and continuous, the already congested tissue will receive an undue amount of blood, consequently the result, (inflammation;) hence, in sthenic inflammations we call to our aid the sedative influence of bloodletting, which relieves the pathological condition by taking off arterial and cardiac action, thereby affording the congested vessels an opportunity to contract and throw their contents into the circulating current. Now, if our object can be accomplished, viz: a reduction of the febrile movement, and a healthy promotion of the excreting and secreting vessels, and avoid sanguineous evacuations, it will be accomplishing an object long desired by the practitioner of medicine. Almost all standard authors and practitioners agree that typhoid patients offer but a poor tolerance to general bleeding, and almost daily experience admonishes the correctly observing physician to husband the vital forces even from the commencement. It is not claimed that Veratrum Viride is a specific in typhoid fever, but that by an appropriate administration of the remedy, aided by proper auxiliary treatment, the disease will in a great measure be shorn of its mortality, and run comparatively a mild and safe course as will appear by citing the following cases:

Was called July 8, 1855, to see J. K., a neighboring townsman, who in health possesses a sound, full and vigorous constitution.

Patient informed me he had been unwell for the last fortnight, was then suffering severe pain in the back and head, tongue darkly coated in the middle, edges, and tip red, with papilæ prominent, pulse 100, and indicated greater frequency than really existed, skin hot and dry, thirst urgent, bowels rather costive but evinced a high degree of susceptibility to the action of cathartics, nervous symptoms well developed for this stage of the disease. My diagnosis was typhoid fever, and prescribed Hyd. Chl. Mit. 10 gr., Rhei. 15 gr., which acted on the bowels and required a restraining dose of opium before the bowels ceased to act. I then, at 12 M., commenced giving Norwood's tinct. Veratrum Viride, every two hours, in four drop doses, until three doses were taken, when patient vomited, discharging from the stomach a large quantity of water, mucous, and some bilious matter, pulse gradually came down to 60, full and soft, a free diaphoresis was now established and patient expressed himself much relieved. Subsequently, until convalescence was established, (which required about 12 days,) this patient daily took enough Veratrum Viride to curb the action of the heart and arteries, and occasionally to produce vomiting and a moderate diaphoresis. Throughout the course of the disease, other auxiliary treatment was instituted, but the reliable agent was Veratrum Viride.

The second case of typhoid or enteric fever in which Veratrum signally manifested its controlling influence was in the person of J. B. A., Esq., aged 21, unlike the preceding case, is of a nervo-lymphatic temperament. This patient, after having passed through the stage of incubation, was, on July 17, confined to his room, complains of head-ache, general languor, cold sensations, alternated by flushes of heat, skin hot and dry, tougue coated, bowels loose, pulse 98. Prescribed an emetic of ipecacuanha, to be followed by a mild mercurial cathartic.

18th.—Emetic and cathartic have acted well, but instead of producing relief there is an aggravation of all the symptoms, skin now permanently hot and dry, tongue more thickly coated, pulse 110, cathartic still operating, gave opium and chalk to restrain the bowels, and spirits nitre to quiet nervous symptoms, and to act on the skin.

19th.—Patient much the same as on yesterday.

20th.—There is decidedly an aggravation of all the symptoms, and now we have added, (when sleeping,) delirium and a tympanitic

condition of the abdomen, pulse 125, decubitus on the back, gave opium to restrain the bowels, and Veratrum Viride in four drop doses every two hours until five doses were taken, when patient vomited, discharging acrid bilious matter in a large quantity from the stomach. A copious perspiration now ensued, which was followed by an abatement of all the symptoms, pulse came down in six hours to 60, full and soft, patient expresses himself as being quite easy and free from pain. I now resolved to suspend the Veratrum in order to see if the circulation would regain its former activity, which condition fully obtained in about ten hours.

21st.—Veratrum was again given, and again controlled the action of the heart and arteries, reducing the pulse in eight hours to 54; skin perspiring, tongue moist, urinary secretion active and patient comparatively comfortable. In this case the Veratrum was continued to the period of convalescence, which was about fourteen days, in doses sufficient to maintain the pulse about at the normal standard, which preserved the skin moist and promoted the secretions in general.

During the entire progress of the disease in the above cases, attention was given to local determinations and auxiliary treatment instituted as pathological conditions required, but I will again repeat the great and governing remedy was *Veratrum Viride.*

Before closing this article, (already too long,) I cannot refrain from speaking of it as a remedy in pneumonia simplex and pneumonia typhoides. Without further taxing time and patience, I will here state that I have used Veratrum Viride with entire satisfaction in many cases of the above named diseases, frequently manifesting its curative properties by signally cutting short the disease and sparing the patient at least a severe and painful conflict with this common scourge of the race. In several instances the febrile paroxysm never fully obtained after the first full manifestation of the remedy; copious expectoration being established, the patient, without interruption, approached the period of convalescence.

Where it manifests its full sedative effects, such as vomiting, reduction of the pulse to 40 or 45 beats per minute, copious perspiration, coldness of the surface, &c., we possess a reliable antidote in morphia and tincture ginger, which will speedily dissipate the symptoms referred to.

PART SECOND.

AMERICAN AND FOREIGN INTELLIGENCE.

ART. I.— *On the application of statistics, to questions in Medical Science, particularly as to the external causes of Diseases.* By DR. W. P. ALISON, Emeritus Professor of Practice of Medicine, Edinburgh.

[The knowledge of the external causes of diseases is that which leads most directly to their prevention. It is simply by the force of numbers that we have learnt how the poison of small-pox may be diffused, and that it may be disarmed of its power over the human body. So also with respect to the extension of another epidemic, the puerperal fever. We now possess information which enables us to predict that its propagation may hereafter always be prevented. The observations of Dr. Semmelweiss in the great lying-in hospital at Vienna, where upwards of 6000 births take place in a year, have unequivocally shown.]

1. That this disease is, in fact, a case of the Diffuse inflammation or Erysipelas, attended with the same peculiarities in the extension of the inflammation, and in the nature of the effusion, and the same variation as to the nature of the accompanying fever in different epidemics.

2. That one immediate exciting cause of this form of inflammation, which may always be suspected when it prevails epidemically, is the *cadaveric* poison,—often evolved, during the decomposition of the human body, from whatever cause death may have taken place; but during one stage of that decomposition only, viz: that early stage during which the *post mortem* inspections for the investigation of the cause of death are most frequently made.

3. That when this form of inflammation assumes the form of epidemic puerperal fever, the mode of its transmission from one patient to another is by accoucheurs or nurses, themselves in good health, but to whose persons or clothes minute portions either of the *effluvia from others* already affected, or of this *cadaveric poison*, have become attached and

4. That when the obvious precautions are taken, to prevent any persons to whom, in either of these ways, the poison can have thus adhered, from acting as accoucheurs or nurses until effectually purified, no "epidemic extension" of puerperal fever is seen.

It is seldom, no doubt, that this last proposition can be submitted to so searching a scrutiny, as in the year 1846, at the Vienna Hospital, under Dr. Semmelweiss, when the number of deaths, after these precautions were adopted, was diminished by no less than 400 in that hospital alone, and in a single year; but when it is added, that each of the propositions above stated is quite in accordance with observations made and recorded (although the bond of connexion among them had unfortunately not been duly observed) in this country, whenever puerperal fever has been epidemic, whether on a large or small scale,—so that it would be easy to collect statistical evidence of the same kind from every such epidemic, wherever any record of the facts has been left, to establish each of these propositions,—the force of this statistical evidence becomes such as to justify the sanguine anticipation above announced.

Our information as to the mode of extension of the malignant cholera, is, unfortunately, as yet less certain or precise; yet I think we may say it is so far advanced, that we may entertain a confident *hope* of its being very soon such as to disarm any epidemic cholera, in this climate, at least, of all its terrors.

I allude to that subject here, chiefly because I think it affords an example worthy of notice, of what I have already stated, as to the frequent misapprehension of the strength of evidence, simply empirical, or founded on statistics, which may often be obtained in inquiries of this kind.

I mentioned formerly in a paper on this subject, which I had the honor of laying before this Association at Birmingham, a *single case* which I saw in the year 1832, and which I have always maintained to have been sufficient, for any one who duly attended to the statistical evidence it afforded, to establish the proposition, that the disease is capable of propagation in this climate, by the intercourse of the sick with the healthy, without pledging us to any opinion as to the mode of communication, or as to the existence of other modes. Now that it is generally admitted, that the assertion then made was correct, the question for discussion now being (as stated by the editor of the "British and Foreign Medical Review,") *not* whether cholera is contagious or not, but *how often* it spreads *by the agency of*

human bodies (i. e. by *contagion,*) and how often without that agency" (Journal for January, 1854, p. 298,) I think myself justified in drawing attention to the grounds on which it was made; and which I still think amply sufficient to establish that mode of communication, without, of course, excluding others.

The reason of this strong expression of opinion was, that the case furnished a remarkable example of the evidence which, according to what was formerly stated, a single *positive* fact may afford,—quite of the nature of the *instantia crucis*, when supported by a large body of *negative* observations. The anxious expectation of the disease in the town, in 1832, the careful division of the town into districts, and appointing of stations and medical men to each, and the number, zeal, and intelligence of these observers, were known to be such as to justify our saying, that this was the very *first* case of the disease which ever originated in Edinburgh or Leith, in a person who had not left the town; and that for a time it was *an isolated* case, no other appearing for ten days, in a population of above 140,000 persons, many of whom were in circumstances, in all other respects at least, equally favorable to the appearance of cholera, as this woman was;—as the subsequent appearance of the disease in many of them, during nearly a year that the disease afterwards existed in Edinburgh, proved. If the poison producing this "*nova pestis*" had no contagious property, this woman was not more exposed to it than any other of this large body of people; but if it had that property—in whatever other way it might be communicated—she was undeniably and peculiarly exposed, as she was engaged in nursing her son, in a close confined room, who was ill of the symptoms of cholera, during the whole of the day preceding that in which she sickened and died; and he had passed the next preceding night in a house in Musselburgh, where patients in the malignant disease then were, and had been for weeks previously. Here, then, was a fair *instantia crucis*, to determine whether the transmission of the disease, from place to place, known to be at that time a frequent event, was or was not dependent on intercourse of healthy persons, with those previously sick of it; and the affection of this one person, who had that intercourse, contrasted with the non-appearance of the disease in the 140,000, was, as I maintain, *decisive* evidence.

Many cases, equally decisive, have since occurred, of which I have been informed, on the *first* appearance of a disease *previously unknown* in a town or district, carefully observed;—*e. g.* at Arbroath

in 1853, where there was clear proof that the two first persons, of 15,000 inhabitants of that town, who took cholera, "had just returned from Dundee, where they had visited persons ill of cholera; their affection, therefore, proves nothing as to the efficacy of intercourse with the sick, in exciting the disease, rather than merely visiting a particular locality;—but the next *six* who took it in Arbroath —the *first six* inhabitants of that town who took cholera without leaving the town, had repeated and close intercourse with those already affected before they took it; and the inference as to the contagious property is drawn, not from their taking the disease, nor even from their taking it at that time, and in rapid succession, but from their being *the only inhabitants* of Arbroath who took it during the first week of its existence in that town;—*i. e.* the positive evidence of the *six* who were known to be exposed to that cause, is supported by the *negative* evidence of the *fifteen thousand* who could not be shown to be, and the immense majority of whom certainly were not, so exposed.

I have great hopes that we shall soon have statistical evidence to establish a proposition which no other evidence known to us could justify our admitting, but which, if established, would not only reconcile most of the conflicting statements on this subject, but serve as a guide to almost complete security from any epidemics of this disease in future, viz: that the poison of cholera, *like other known animal poisons*, is developed during the decomposition of the animal matter, the appearance of which is most characteristic of the disease —that which constitutes the "*rice water stools*,"—but only in a *particular stage* of that decomposition, not immediately after its formation in, or discharge from, the body; and again, not after the decomposition has gone to a certain length. All this can be proved only by statistics, but is quite susceptible of proof in that way. The last proposition above stated—that no poisonous property is attached to any part of a body dead of cholera, after a certain stage of decomposition has been passed, seems nearly ascertained from the number of instances in which dissecting rooms have been supplied with bodies of persons dead of cholera, for many weeks together, without any of the students attending them being affected. That the peculiar matter of the cholera evacuations, during its decomposition, perhaps especially in dry air, has a peculiarly poisonous quality, was, I believe, first suspected by Liebig, and partly by the analogy of the poison already mentioned, causing erysipelatous inflam-

mation and puerperal fever—and also of the *sausage poison*, repeatedly observed on a large scale in Germany, which is developed during a certain stage of the decomposition of the animal matter of those sausages, and disappears when their putrefaction has so far advanced. That the cholera can be communicated to animals by inoculation with this matter of the peculiar rice water stools, has been sufficiently proved by the experiments of Dr. Lindsay in this country; and if a few more experiments shall give results similar to those of M. Thiersch, at Munich, I think we may assert that the proposition above stated, is *statistically* proved. "Dr. Thiersch collected the intestinal contents, or the evacuations, of cholera patients, and let them decompose under the influence of air and heat. From day to day he dipped into this matter pieces of filtering paper, which he dried, for subsequent experiments on white mice. Two of these animals at a time were exposed to infection for four days, by having a square inch of the filtering paper, thus prepared, moistened with water and mixed with their food. Each mouse took thus, 1-2000th gr. daily. The results were as follows: The preparations from the matter during the first day of decomposition were *innocuous*. To this succeeded a period of from six to nine days, during which decomposition went on, and preparations from the matter in this second period of decomposition, caused disease in 30 out of 34 animals, and death in 12 of the 34. The symptoms were peculiar and characteristic. The hair fell off, the ears dropped, there was languor, then discharge from the bowels, first of white, then watery matter, the urine lost its smell, then was suppressed, the appetite became *depraved*, so that the animals would fill their stomachs with wool; there was no apparent sickness, but such tonic muscular contractions that they seemed dead some time before death. On dissection, accumulation of blood in the vessels of the small intestines was invariably found, their contents *watery*, with *abundant epithelial flakes* (just similar to those found in persons dead of cholera;) the cortical substance of the kidneys passing into fatty degeneration, the bladder empty, the blood and the contents of the intestines answering to the test of ready mixture with amygdalin, as in the cholera of man,—which will not appear in the healthy animal. To this a third period of decomposition of the matter under trial succeeded, in which these poisonous effects were very slight, or not observed at all."—(See 'Medical Times and Gazette,' Nov. 25, 1854.)

We have already a statement by Dr. Budd, of statistical observations made on villages in England, where the entrance of cholera appeared to be prevented by such expedients as these observations immediately suggest, for receiving the rice-water evacuations of cholera patients on linen or cotton, and burying or burning, or otherwise effectually destroying their substance, during that period, thus indicated, after they have been passed, and before they have entered on the morbific decomposition; and we have sufficient statistical evidence of the importance of another measure,—which was first adopted, I believe, at Edinburgh, in 1832, and has since been recommended by the Board of Health in London, and adopted in different places, although not so generally or satisfactorily as could be wished—founded on the merely empirical statements I have made as to the communication of the disease from the sick to the healthy, and its apparent adhesion to particular, often very limited localities, viz: the establishment of *houses of refuge*, for the reception of all inhabitants of houses or rooms which might become infected with cholera in any town; not themselves affected, nor required for the care of the first cases that might occur. Here such persons might be lodged in pure air, regularly fed, preserved from cold and from other (frequent concurrent) exciting causes of the disease, and treated with due attention to cleanliness, immediately on any symptoms of cholera showing themselves. The London Board of Health report, that they had information of 1,691 persons taken into these houses of refuge, from rooms where there were patients in cholera, and of these only 33 became affected with cholera, and only 10 died. In cases of which I was myself informed in Edinburgh, at Glasgow, and at Oxford, during different epidemics, 1,010 persons were admitted from sick rooms into such houses of refuge, of whom 40 took the disease, and 15 died; whereas, the experience of Dr. Hamilton, of Falkirk, of 251 cases of cholera appearing in 86 houses, where no such means of separation existed, gives only a fair idea of the extent to which successions of cases will often be observed, in confined air and dirty districts, possessing no such resource.

I am happy to say that so far back as November last, having written to Dr. A. Smith, at the head of the medical department of the army, on the subject of the decomposition of the rice-water stools, as the probable cause of the propagation of cholera, and of districts becoming *tainted* with the poison of that disease,—I was

informed by him that he had directed the attention of the medical officers in the Crimea to the facts now stated, so that if the disease shall appear in a malignant form in that army, we may hope for at least accurate and truly statistical information as to the reality of that opinion.

Again, as to the yellow fever so frequently becoming epidemic in the hot climates, although we cannot boast of having acquired information either as to the nature of its cause, the essential character of the morbid change it produces, or the power of any remedy over it,—yet by simple empirical observations, *i. e.* by statistics, we have information to the following effect, as stated in reports in Germany and France, on inquiries conducted by order of those governments, on a larger scale, and considered by committees containing the names of Humboldt and Dupuytren, that it is a disease *endemic*, almost exclusively, "in districts nearly on the level of the sea, never appearing beyond 48° of north latitude, nor without a previous temperature of 72°—only in certain circumstances propagated by contagion," but when epidemic, always *confined strictly to certain localities;* so that the practical rule of immediately evacuating, *i. e.*, removing *all* the inhabitants of places where it is declared to exist, and has formerly prevailed, is *incontestable*, and "of such proved utility as will always justify its vigorous execution."

Without dwelling farther on the effects of malaria, in this or any other climate, which we can only expect to be satisfactorily explained when pathology shall be considerably more advanced than at present, I may merely add, that such collections of facts have been made and are now frequently repeated, as to the places and circumstances in which it arises from the earth, and the laws according to which it extends and multiplies—considered merely empirically or statistically—as we may confidently expect to be successful in disarming this cause of disease likewise of its terrors, long before the nature of the change produced by its action on the living body, or the rationale of any line of treatment of those who may be affected by it shall become known.

The case of Epidemic Scurvy, resulting in different cases, as is now satisfactorily established, from different deficiencies in the diet habitually taken—the efficacy, therefore, of different kinds of diet in counteracting this form of disease—still more remarkably, the power of small quantities of vegetable acids in producing the same effect, and the extraordinary rapidity with which such changes of diet and

these acids will produce their effect—may also be stated as examples, on a large scale, and of the most satisfactory kind, of what is generally called the power of art over a most loathsome and virulent disease—but in reality must be regarded, now and probably long after our time, as results obtained by simply empirical observations of the course of nature, statistically arranged, fortunately facilitated by so many of the subjects being organized bodies of men;—and which have distinguished the present age to a degree which those who are not familiar with the medical writings of the last century will hardly conceive.

We have good reason to hope that the inquiries now on foot as to the external causes of Scrofulous, or of what is now usually called tubercular disease, including pulmonary consumption—an inquiry which we must perceive to be more complex, and in which the operation of various causes must be recognized—will be effectual in pointing out the means of counteracting that tendency in a very large proportion of cases of persons liable to it—simply on the principle of empirical observation, enlarged and arranged in the form of statistics, long before we shall have information as to the essential nature of the vital process or mode of operation of the causes in question.

In illustration of this, I need only mention two facts, recently ascertained on so large a scale, that we have no doubt of their truth and importance, and which, even at present, may be said to be guides to successful practice in many cases only recently thought hopeless, although all that was previously known on the subject was certainly rather averse than favorable to the supposition that they would ever be established. These are—1. The good effect of cod-liver oil—if not of other animal oils, on many cases of tubercular disease, in their early stage—provided only that it can be retained on the stomach to the extent of an ounce and a half or two ounces daily; and, 2. The almost complete exemption of the inhabitants of the Faro Islands from tubercular disease, notwithstanding that their climate, as regards cold and damp, is exactly that which, in this country, has been thought most favorable to it.—*Edinburgh Medical Journal, November* 1855, *p.* 385.

ART. II.—*Experimental Researches on the Nervous System.* By Dr. E. BROWN-SEQUARD, Laureate of the Académie des Sciences.

There are two kinds of sensitive fibres in the posterior columns of the spinal cord, some going up towards the encephalon (centripetal or ascending fibres,) some going in the opposite direction (centrifugal or descending fibres.)—I had found long ago, that after a transverse section of the posterior columns of the spinal cord, the inferior surface of the section, or that of the part of the posterior columns which seems to be separated from the encephalon, remains sensitive. In 1852 I was forcibly led to admit that there are sensitive fibres going in a centrifugal direction in the posterior columns. The following experiment was the first which led me to this conclusion. I introduced a very sharp bistoury between the posterior and the anterior parts of the spinal cord, so as to separate the two posterior columns from the grey matter, and from the antero-lateral columns. By this means I obtained a segment of the posterior columns, in continuity, by its two extremities, with the rest of its spinal marrow. This being done, I divide transversely the upper extremity of this segment, leaving it attached merely by its lower extremity to the rest of the cord. This segment I find sensitive in the whole of its length, when it is not much more than two inches long, in a large animal.

If we prepare, in the same way as in the preceding experiment, a segment of the posterior columns, two inches long, and attached by its upper extremity, instead of being attached by the lower, we find, also, that this segment is sensitive in all its length.

To avoid circumlocution, I will call "cephalic segment" the one united to the cord by its upper or cephalic extremity, and "caudal segment" the one united to the cord by its lower or caudal extremity.

A caudal segment usually seems to be more sensitive than a cephalic segment. The sensibility in the two segments increases from the free or divided extremity to the attached extremity. When the segments are four or five inches long, sensibility disappears from the divided extremities.

The pain produced when we irritate the caudal segments arises from two causes, the principal of which is that there are some descending or centrifugal sensitive fibres in it. The other cause is, that reflex painful cramps take place in consequence of the irritation of this segment.

The existence of the descending sensitive fibres will be rendered more certain by other experiments which will be related hereafter.

There are also ascending and descending sensitive fibres in the posterior grey horns, and very likely in the posterior parts of the lateral columns.—In making a caudal or a cephalic segment of the posterior columns, if we leave united with this segment longitudinally a part of the lateral columns with the two posterior grey horns, we find that sensibility is greater in the posterior columns of the segment than when it is composed only of the two posterior columns. When we leave a great part of the lateral columns with the segment, its sensibility seems to be a little greater.

Now we have to examine where the descending and ascending sensitive fibres of the posterior columns are coming from, and by what channels they communicate with the encephalon.

The ascending and descending sensitive fibres which exist in the posterior columns, come mostly, if not entirely, from the posterior roots of the spinal nerves.—I draw this conclusion from the following experiments, which show that a certain number of the fibres of the posterior roots pass through the posterior columns.

After a transverse section of the posterior columns at a little distance in front of the posterior roots of a pair of nerves, I ascertain that these roots are still sensitive, although a little less than before the operation. Then I divide transversely the posterior column at a short distance behind these roots. Their sensibility after this second section is very much diminished, so that we are led to admit that many of the fibres of the posterior roots pass into the posterior columns in which they are descending.

Now, in making first the section behind the posterior roots of a pair of nerves, we find their sensibility diminished, and after the section before these roots we find it very much more diminished. So that we are led to admit that many of the fibres of the posterior roots pass into the posterior columns in which they ascend towards the encephalon.

The posterior roots not only send ascending and descending fibres to the posterior columns, but also to the posterior grey horns, and very likely to the posterior parts of the lateral columns.—After having divided transversely the two posterior columns in front and behind the posterior roots of a pair of nerves, if we enlarge these two sections by dividing transversely the posterior grey horns, and the posterior parts of the lateral columns, we find that these roots lose entirely their sensibility.

If we introduce a flat needle into the posterior grey horns, in front and behind the posterior roots of a pair of nerves, so as to divide transversely these horns, we find that sensibility is diminished in these roots. If these punctures into the grey matter are made only in front or behind these roots, their sensibility is very little diminished after the operation.

If we divide the posterior part of the lateral columns, together with the posterior grey horns, we find that the loss of sensibility is a little greater.

The ascending and descending sensitive fibres which have passed from the posterior roots into the posterior columns, the posterior grey horns, and very likely also the lateral columns soon leave these parts to go into the central grey matter.—This is proved by a great many experiments, of which I will relate only the following:—After having made a transverse section of the posterior half of the spinal cord, if we make a second similar section, at a distance of four or five inches, or more, if the animal is a very large one, we find that the upper surface of the lower section is very sensitive, and the posterior roots attached near it are also very sensitive. Now, if we make other transverse sections of the same posterior half of the spinal cord behind the upper one, we find that the nearer the section is made to the lower one, the more sensibility is diminished in the parts which we had found very sensitive at first. This is a proof that the ascending sensitive fibres, when going upwards, leave the posterior parts of the cord after the other. An experiment of the same kind proves that the descending fibres behave as the ascending do.

After having gone out from the posterior columns and the posterior grey horns, the sensitive fibres pass into the central part of the grey matter, as is proved by the effect of the transverse section of this central part of the cord.

The ascending and descending sensitive fibres coming from the posterior roots decussate in the spinal cord.—It was admitted, before my researches, that there is no crossing of the sensitive fibres into the spinal cord. Physiologists and Pathologists entirely agree upon this subject, and, in the books upon the diseases of the spinal cord, it is stated as a well-proved fact, that a lesion of one side of this organ produces paralysis both of voluntary movement and sensibility in the same side of the body. The following experiments prove that the sensitive fibres cross each other in the spinal cord, and we will

relate, in a moment, a few (out of many) pathological facts which agree with these experiments.

After having divided transversely a lateral half of the spinal cord in the dorsal region, we find that there is an increase in the sensibility of the parts of the body situated behind the section, while the corresponding parts in the opposite side of the body are much less sensitive than before the operation. This experiment and the following prove that the transmission of the sensitive impressions coming from the left side of the body, takes place mostly along the right side of the spinal cord, and *vice versa.*

If a transverse section of a lateral half of the spinal cord is made in the cervical region, the two limbs on the side of the section become hyperæsthetic, and the limbs on the opposite side lose, at least, a great part of their sensibility.

If, after a transverse section of a lateral half of the spinal cord of the dorsal region, we divide the other half of this organ in the cervical region, we find that the hyperæsthesia, which existed after the first section in the parts of the body which are behind it, disappears and is replaced by anæsthesia.

If we divide transversely, first, the two posterior columns of the spinal cord in the dorsal region, we find, as I have already said in the first part of this paper, that the posterior limbs are in a state of hyperæsthesia. This being ascertained, I divide transversely the remainder of a lateral half of the spinal cord, at the place where the posterior columns have been divided, and then I find that the hyperæsthesia of the posterior limb, behind and on the side of this second operation, becomes increased, while not only the hyperæsthesia, but sensibility, disappears almost entirely in the other posterior limb.

A longitudinal section, separating the spinal cord into its two lateral halves, gives very decisive results as regards the crossing of the sensitive fibres in this organ, particularly when this section is made upon the cervico-brachial enlargement. In such a case, sensibility is lost in the two anterior limbs, while it remains, and seems somewhat increased, in the two posterior limbs. This having been ascertained, if I divide transversely one of the lateral halves of the spinal cord, at the place where they are separated one from the other, I find that there is an increase in the hyperæsthesia of the posterior limb on the same side, and that the sensibility of the other posterior limb is almost entirely destroyed.

It would be too long to relate some experiments which prove that the appearance of sensibility in the side of the body opposite to the section, depends upon a communication between this side and the other, which is hyperæsthetic, by means of reflex action and of what has been called recurrent sensibility by Magendie.

The ascending, as well as the descending sensitive fibres make their decussation, in a great measure, very near their place of entrance into the spinal cord from the posterior roots.—After having divided transversely a lateral half of the spinal cord, in the dorsal region, if we divide longitudinally this organ, so as to separate its two lateral halves one from the other, and at a right angle with the transversal section, we obtain the following results, when the longitudinal section, in a large animal, is only two inches long:—Whether this longitudinal section has been made behind the transverse one (so as to give a caudal segment of a lateral half of the cord,) or before the transversal (so as to give a cephalic segment,) we find that sensibility persists, but diminished, in these segments, and in the posterior roots which are inserted upon them. If the longitudinal section is more than two inches, sensibility does not exist in the whole length of the segment; it begins to exist at the distance of about two inches from the extremity, which adheres to the rest of the cord, and it increases by degrees from this part to the adherent part.

There are pathological cases observed in man, which prove also that the sensitive fibres make their decussation in the spinal cord.—I have already published some cases of this kind, and they will be found, with a few others, in the book I am about publishing. I will merely relate here, shortly, the three following:

1. A patient was paralyzed of voluntary movement on the right side of the body, with unimpaired sensibility. On the left side, on the contrary, he had lost sensibility, but had no paralysis of voluntary movement. After death, a fungoid growth was found pressing upon the right lateral half of his spinal cord.

2. A patient, with loss of voluntary movement, and conservation of sensibility in the arm and leg, on the left side, had only a very obscure sensibility in the same parts on the right side. After death, a clot of blood was found in the left lateral half of his spinal cord in the cervical region.

3. A patient had lost voluntary movement, and had his sensibility normal on the right side of the body. On the contrary, on the left side, he had entirely lost sensibility, but had no paralysis of vol-

untary movement. After death, a clot of blood was found in the left lateral half of the spinal cord, in the cervical region.

It results clearly from these facts, and from others which I cannot relate here, that the sensitive fibres cross in the spinal cord.

Many cases of alteration of a lateral half of the medulla oblongata, and of the pons Varolii, prove that the decussation of the sensitive fibres of the trunk and limbs takes place in the spinal cord.—I will merely relate, as briefly as possible, three of the cases as examples:

1. A patient had paralysis of movement in the limbs, on the left side, and also a very dull sensibility in these limbs.

The symptoms increased, and the hemiplegia became complete in the left side, but the right side remained perfectly healthy. After death, the right lateral half of the pons Varolii was found to be the seat of a diffluent softening, while the left half was healthy.

2. A patient was hemiplegic both of voluntary movement and sensibility on the left side of the body. After death, a *ramollissement*, the size of an almond, and resembling liquid pus, was found in the inferior and middle part of the right side of the pons Varolii.

3. A young Pole became paralyzed both of sensibility and voluntary movement in the left side of the body. After death, the right side of the pons was found double its normal size, extending forwards and backwards, and compressing the neighboring parts. The cause of the enlargement of the pons was a very large clot of blood.

These facts do not agree with the views of Longet, as to the place of crossing of the sensitive nerve-fibres in the cerebro-spinal centre. Longet thought that this crossing took place in front of the pons Varolii, where the processus cerebelli ad testes seem to decussate.

The cases of alterations, limited to one-half of the pons Varolii, of the medulla oblongata, and of the spinal cord, all agree in showing that the sensitive fibres of the trunk and limbs make their decussation in the spinal cord, and not higher. The very disputed question whether the medulla oblongata has a crossed action for sensibility or not, is decided in the affirmative by these facts.

Some anatomical appearances had led Sir Charles Bell to admit that the decussation of the sensitive fibres takes place in the floor of the fourth ventricle, near the nib of the calamus. It is not necessary to show that this view is in opposition with the results of the experiments and of the pathological cases which prove that it is in the spinal cord that the sensitive fibres decussate.

The transmission of sensitive impressions through the spinal cord takes place in some definite directions, and not, as many German physiologists have thought, in almost every direction.—The fact that a section of a lateral half of the spinal cord does not prevent the taking place of the transmission of the sensitive impressions coming from the parts of the body which are on the side and behind the section, had led Stilling and others to admit that the grey matter of one-half of the spinal cord was able to transmit impressions coming from the two sides of the body. Other experiments upon frogs,—animals in which reflex actions are very energetic,—have misled these physiologists, and they have concluded that the transmission of sensitive impressions may take place almost in every direction in the spinal cord, and that one part of the cord may act in place of another in a supplementary manner.

These views, which are in opposition with the theories of the isolation of sensations, are also in opposition with many of the experimental and clinical facts we have related. It is not necessary to show how these facts are in opposition with the views of the German physiologists. We will merely say, that the loss of sensibility observed in experiments and in pathological cases, on the side of the body opposite to the side of the lesion, should not have taken place had these physiologists been right. Another striking experiment against their view is, that a longitudinal section separating the spinal cord in the whole lumbar region, prevents the taking place of transmission of the sensitive impressions coming from the posterior limbs.

All the experiments I have made tend to prove, that the transmission of sensitive impressions follows a definite course in the spinal cord, and that when they cannot follow their normal course, they do not find a supplementary one.

The course of sensitive expressions in the spinal cord is not the same as that of the nervous force for the reflex actions.

M. Flourens has shown long ago, that the spinal cord has the faculty of propagating the nervous force in almost every direction for the reflex actions. The following experiment shows the differences between the transmission of sensitive impressions and that of the nervous force acting for reflex actions. After having divided longitudinally in two lateral halves the lumbar enlargement of the spinal cord, we find that sensibility is lost in the posterior limbs, and that

reflex actions remain in them before and after a transverse section has been made in the dorsal region of the spinal cord.

There are some transverse fibres in the spinal cord, coming from the posterior roots, which do not seem to transmit sensitive impressions.—After a transversal section of the posterior half of the spinal cord, just in front and behind the roots of a pair of nerves, we find that there is hardly any appearance of sensibility in the posterior roots inserted between the two sections. There is, when we irritate these roots on one side, or rather when we irritate the part of the skin to which they are distributed, a slight reflex movement on the corresponding and on the opposite side of the body. The transverse fibres, which the microscope shows going from the posterior roots of the one side to the anterior roots of the corresponding and of the opposite sides, seem not to be employed for the transmission of sensitive impressions, but for reflex actions. These transverse fibres have been seen by almost all the micrographers; but it is mostly to Stilling, and after him to Mr. J. Lockhart Clarke that we owe the first good descriptions of them.—*Med. Times and Gazette, May* 3, 1856, *p.* 432.

ART. III.—*An Essay on Croup.* By S. M. BEMISS, M.D.

Croup is a disease of such general prevalence and fatality, that but little apology is necessary for frequently calling the attention of medical men to its consideration. It should perhaps rather be held among members of the profession a matter of duty to bring forward each the result of his observation, so that by united contributions, we may establish correct principles of pathology, and such appropriate treatment of the disease, as to diminish, at least, to some extent, the humiliating ratio of mortality heretofore marking its progress. The chief obstacle to the investigation of this subject, has been difference in diagnosis, or more properly, perhaps, difference in the use of the term croup. Some writers apply the designation in its original sense to a symptom merely, and include in their descriptions various pathological conditions attended by stridulous respiration; others regard the presence of false membrane in the larynx or trachea necessary to its definition. This difference has lead to a great deal of confusion and apparent discrepancy among authors, and renders it necessary to examine medical observations closely, to ascertain

whether they relate to true or false croup. For the remedy of this evil, some authors have advised an abandonment of the word croup, and numerous scientific terms have been proposed as substitutes. But, as stated by Roger Collard, none of them convey to the mind but a part of the phenomena of the disease; and as the term is in general use, I shall adhere to it, premising that whenever I employ the word without other specification, I have reference only to true pseudo-membranous croup. In the course of the article I shall take occasion to notice those affections which, from resemblance of symptoms or supposed analogy of character, have been associated with membranous croup, and shall then discuss the propriety of classing them under the same denomination.

The mortuary list of various countries exhibit a striking uniformity in the rate of mortality from croup. This observation will even apply to countries subject to climatic influences as different as England and Kentucky. In the former country, the deaths for five successive years amounted annually to about one in every 3,500 of the whole population; in Kentucky, for three successive years, the annual report of deaths under this head, was about one in 3,000 of the white population, and in something less than 2,000 of the negro race. Massachusetts and New Jersey exhibit a ratio of over one in 4,000, and Connecticut less than one in the same number of their respective population for the year 1854. If we take into account large urban populations alone, this relative ratio is almost always greatly increased: Boston, New York and Philadelphia lose annually about one in 1,000 of their population from this cause. These estimates are in many instances only approximative, but they are believed to fall below rather than to exceed the truth. The increase of population since 1850 impairs to some extent the correctness of statistics based upon the census of that year.

Symptoms.—The symptoms of croup are divided into those of invasion; those of development or confirmation; and those of collapse or suffocation. The symptoms of the first stage are, in a majority of instances, those of ordinary catarrh. The child complains of light chills; of malaise, probably of its head or throat; there is more or less fever, the cheeks are flushed, the eyes watery, the discharge from the nares, sometimes unusually transparent and ropy, is increased. The voice and cough are often somewhat hoarse, but as the child frequently pursues its usual pastimes without any symptoms of such gravity as to demand immediate interference, it seldom occurs

that the apprehensions of its friends are excited, and the physician is rarely summoned during this stage. These precursory symptoms may continue for a longer or shorter period, varying from ten or twelve days to a few hours. They may even be wanting, according to some observers, though Ryland says the precursory catarrh exists "probably in all cases, but often passes unnoticed on accouut of the extreme youth of the subjects of this disease, and the undistinguishing character of the symptoms themselves."

The symptoms of the second stage date from the accession of the characteristic cough and respiration. The lesions to which these peculiar modifications are due, undoubtedly have their origin during the first stage, and may precede the actual symptoms of development for a longer or shorter period, in measure with the rapidity of march of the disease. These lesions are probably at first more or less extensive catarrhal irritations or hyperæmia of the mucus membrane, merging itself into inflammation (Hasse,) and pouring out the material of the false membrane. As this concrete exudation, and its attendant serious infiltration encroach upon the larynx, they impede its functions, and produce alterations of respiration, cough, and voice pathognomonic of the disease. The earliest change in the respiration is, according to Dr. Ware, a mere exaltation of the act, denoted by a little more than usual exertion of the voluntary respiratory muscles, a "slight dilation of the nostrils, and a little whiz or buzz accompanying the passage of air through the rima glottidis." As the larynx, and especially the glodttidean chink, are invaded, the respiration becomes laborious, stridulous, and sibilant. Drs. Vautheier and Blache have compared the sounds of the respiration to the movement of a saw through soft stone, and there is justice in the comparison. The respiratory act is always hurried; in Vauthier's cases it averages from 36 to 40 per minute; the greatest number was 56. "A symptom of the greatest practical value in regard to the respiration in croup is the sudden and paroxysmal exacerbations of the dispnœa which constantly exist. For instance, we witness a certain degree of obstruction to the respiration, which appears to be mechanical, and is continuous; the violent aggravations of dyspnœa, not persistent in their character, and evidently attributable to spasm. These paroxysms have a tendency to periodicity, and recur more often at night with obvious remissions towards morning. They may however be induced by any excitement or provocation, by deglutition, coughing, or attempts of the physician to make a close examination."

It is impossible to describe the characteristic cough of croup so as to convey a correct idea of its sound to the inexperienced, while to the experienced, description is unnecessary, for it is so peculiar, and often connected with such painful associations, that those who have heard it seldom fail to recognize it again. It very often first announces itself at night, and is, at the incursion, usually loud, metallic and harsh; but as the exudation progresses along the larynx, and the vocal chords become veiled, it loses the clangous resonance and sounds as though it were stuffed and pent up in the trachea (Guersent.) During the dyspnœal fits it undergoes a corresponding aggravation, becoming tighter and more embarrassed.

The voice at the debut of croup is generally cracked and hoarse, and as the vocal chords become involved, it is whispering, feeble, and often completely lost. Aphonation is almost always reluctantly performed, and the child often endeavors to express its wants by signs rather than attempt to speak, the repugnance being doubtless oftentimes due to the pain attending the effort. Louis' adult patients complained of a tearing sensation produced in the throat by efforts to speak.

The confirmed stage of croup is accompanied by more or less strongly pronounced febrile symptoms; the pulse is generally frequent and hard, the tongue red at the tip, loaded and white at the base; the tonsils are frequently swollen, and very often the seat of the fibrous deposit. The external throat and face may present a puffed appearance; sub-maxillary glands are quite often enlarged, and the line of the larynx and trachea tender to pressure. Deglutition is generally performed without other difficulty than temporary interference with respiration. The skin is sometimes hot and dry, but in many instances it is soft and of normal temperature; during the accession of dyspnœa it is frequently bathed in perspiration. The bowels are ordinarily rather inactive; the digestive functions and appetite have, in a majority of my observations, been uninterrupted except by the influence of nauseants.

The third or collapsed stage is marked by indications of failing vitality, such as more or less lividity of the lips or face, flagging or intermittent pulse, constant somnolency, and coldness of the extremities and surface. The voice in this stage is either a faint whisper or entirely lost. The respiration retains its characteristics, but there is more continuous difficulty in its performance; it has often a more strongly marked wheezing sound as of "air forced by a pis-

ton through a dry valve ;" and the soft parts of the thorax sink deeply at each inspiration. The cough, dry, feeble and ineffectual, becomes in most cases less frequent, and occasionally entirely ceases. These symptoms go on increasing in severity until the patient perishes either in comatose, or in a violent dyspnœal paroxysm.

The appearance of a child after the full establishment of croup is generally that of inexpressible distress. The dread of impending suffocation is plainly depicted in his countenance, and as the mental faculties are retained to the last, his intelligent watchfulness of the ministration around his bed, and the gloomy calmness of despair written on his features, form pictures too touching to be readily erased from the memory of the observer. The decubitus is usually dorsal, with the head carried back. The hand is frequently brought to the front of the neck, and is sometimes passed into the throat in vain efforts to remove the mechanical obstruction to respiration.

The appearance of the false membrane upon the fauces is a most important symptom in croup. It may often be observed at any period of the disease, but should be regarded as a symptom proper to the first stage, since its manifestation is nearly always anterior to the full confirmation of the malady. It is seen in distinct whitish patches, or a continuous sward upon the tonsils, uvula, base of tongue, or any part of the posterior throat susceptible of being brought into view. Dr. Ware found it present in 32 or 33 cases under his observation. Guersent considered it commonly present in the first stage, but often removed by natural processes or local applications, so as not to be visible later in the disease. These facts cannot be too strongly urged upon the attention of physicians, for they teach the importance of carefully inspecting the throat in every case of suspected croup or catarrh brought under their notice.

The expectoration in croup varies greatly in quantity; sometimes there is little or none, sometimes an abundant viscid ropy mucus collects in the fauces, and increases the difficulty of respiration, until it is removed either by swallowing or the act of vomiting. Fragments of false membrane, more or less large and irregular in form are occasionally ejected. Towards the latter stage, the expectoration is often muco-puriform in appearance.

Complications.—The most frequent complication of croup are pneumonia, bronchitis, and the exanthematous disease. Barthez and Rilliet found pneumonia in five-sixths of their cases. Wert also

regards it as a common complication, and states that it was double in all the cases in which he noticed its presence.

According to Copeland, "the extension of the inflammation to the bronchia and lungs, is indicated by unremitting persistence of symptoms, deep suffocative cough, lividity and leaden hue of the countenance, cold, clammy perspirations and somnolency." Recent pathological investigations also indicate that fibrinous concretions of the heart are not uncommon complications.

The value of auscultation in croup is very much diminished by the fact that its signs are masked by the sounds of respiration, and that attempts at this method of examination agitate the patient, and increase the stridor of his breathing. Mr. Barth was of opinion that a vibratory sound (comme si un voile mobile etait agite par l'air) indicated the existence and limits of the false membrane; but it is probable that this sound is connected only with those occasional instances in which a partially detached membranous fragment moves to and fro with the respiratory currents. It is likely that its benefits are limited to the information it conveys of the "amount of obstruction to the entrance of air into the lungs, and the extent of disease of the air tubes or substance of the lungs, which accompanies it." (West.)

Pathological Anatomy.—The anatomical lesions peculiar to croup relate to the appearance and extent of the exudation, and the condition of the subjacent parts.

The false membrane is of grayish white color, and varies in consistence from that of thick cream to tough leather, (Rokitansky.) It is sometimes disposed in irregular plates, the intervening mucus surface presenting a normal appearance: again it is found covering the whole wall of the larynx and trachea with an unbroken pavement, reaching even to the small bronchial tubes. Dr. Vauthier obtained from one of his patients so perfect a duplicature of the trachea that it was susceptible of insufflation. Its thickness varies from that of ordinary writing paper to one and a half lines. It is nearly always thickest along the posterior wall of the larynx and trachea. Its most frequent location is the larynx, reaching to the upper part of the trachea. In 54 autopsies M. Bretonneau found the false membrane terminating in different points of the trachea in 31; penetrating the large bronchia in 16; reaching the terminal bronchia in 7, (Guersent.) Dr. Budd conceives that the deposit has a peculiar and unexplained predilection for the right bronchus. The surface of

ulcers, of wounds made in the performance of tracheotomy, or any part deprived of the cuticle may occasionally become the seat of exudation. The false membrane has chemical reactions identical with the fibrin of the blood. It has never been observed to be organized, but small points of incipient fibrilation have been found to exist. It is characterized by an early tendency to break down and liquify (Rokitansky,) and during this process it sometimes becomes corrosive, and ulcerates the subjacent tissues.

With regard to the state of the structures beneath, West says, "on removing the false membrane from the trachea, the lining of the tube is seldom found to present any change other than an increase of its vascularity, which, though sometimes very considerable, does not bear any certain relation to the amount of false membrane present." Rokitansky says the sub-mucous tissues, especially the areolar, appear to be infiltrated. It is worthy of remark that in a majority of dissections of patients dying from croup, the mechanical occlusion of the glottis by either the membrane or its subjacent swelling is not so complete as to account for death.

Causes.—Before adverting to those causes which seem to excite attacks of croup, and are immediate in their influence, it will be proper to consider the circumstances of age, sex, and constitution most favorable to its development.

Croup is essentially a disease of childhood; and although no period of life is altogether exempt, it probably finds most victims between the ages of two and four years. Of 27 cases reported by Vauthier, 24 were between those ages. Of thirteen cases of which neighboring physicians have furnished me notes, 9 were between these periods, 2 over five, and 1 under two. Of 10 cases under my own observation, 7 were between 2 and 4, 2 under two, and 1 over five. Of 1401 deaths from this disease in Kentucky during the year 1852, '53, and '54, 1241 were nnder the age of five.

Most observers agree that males are more liable to croup than females. Of 1389 cases in Kentucky, 764 were males, and 625 females. It is probable that this seeming law of the disease is set aside by epidemic influence. In the epidemic recorded by Dr. Vauthier, the deaths were 21 females to 14 males. In an epidemic of 6 cases witnessed by Dr. Wible, 4 were females. Of 7 cases attended by Dr. Meigs while croup was epidemic in Philadelphia, 5 were females. The facts, however, with regard to the relative liability

of the sexes, in either sporadic or epidemic croup, are not sufficiently numerous to justify any absolute conclusions.

It will require further observations to decide positively the state of constitution most favorable to attacks of croup. Jurine, a very accurate observer, thinks the lymphatic temperament most amenable to its incursions. I am clearly of his opinion, though it is not to be denied that the weight of medical authority is against this view. Of the 10 cases under my notice, 6 were undoubtedly of a constitution in which this temperament preponderated. It is an incontestible fact that strong family predispositions exist toward croup. Of the ten cases just referred to, two occurred in one family and two in another, and in one of these families there had been previously two deaths from the same disease. It is well to remark also that no two deaths occurred in the same family within a period of a year, except in one instance; so that no epidemic influence, or simultaneous subjection to exciting causes can be alleged, to contravene the supposition of family diathesis.

One of the most remarkable predisposing causes of croup is early weaning. So many close observers agree upon this point, that we may receive it as an established fact. Of the 10 cases under my observation 5 were children of females, who, from frequent gestation, were obliged to wean their children early. Other conditions, such as enlargement of the tonsils, and the influence of exanthematous or other disease, also predispose to the disease.

The immediate causes of croup are generally referred to atmospherical conditions. Cold, especially humid cold, is probably the most common exciting cause. The influence of temperature is shown by its greater frequency during the cold months of the year. Of 180 cases occurring in the city of Boston in 1852, 132 were in the first three and last three months of the year. The months showing respectively the highest and lowest number of deaths for three years in Kentucky, were October and May.

The Registration Report of Kentucky for 1854, shows a large increase of the deaths from croup over that of the previous year. The last eight months of 1854 were remarkable for extreme, almost unbroken dryness of the atmosphere, and it is a singular fact, that nearly the entire increase of deaths for the year occurred during its

terminal half. This will be more clearly shown by the following table:

	DEATHS.
First six months of 1853	207
" " " " 1854	218
Excess	9
Last six months of 1853	173
" " " " 1854	321
Excess	148

I shall not attempt an explanation of this seeming contradiction to previous observation, but simply suggest that the continual irritation of the respiratory mucous membrane by particles of floating detritus might tend to induce the catarrhal irritation and hyperæmia preliminary to croup. When treating of the pathological condition of the system in croup, I shall refer again to this point.

Diagnosis.—The diseases most frequently confounded with croup are catarrh, laryngitis, laryngismus, and diptheritis. I propose to notice these only so far as to point out the resemblance and relations they bear to membranous croup.

1st. *Catarrh.*—The catarrhal or mucuous croup of some authors, does not, in my opinion, deserve to be considered a variety of croup. Congestion about the glottidean chink, and viscid mucus adhering to the walls of the larynx, may give rise to hoarseness and stridulous cough, bearing sufficient analogy to croup to awaken some anxiety; but the diagnosis is not difficult; the symptoms lack the gravity and intensity of those of croup; and with the subsidence of the slight febrile action attending the affection, renewed secretion occurs and relieves the congested membrane. The bronchitic, rather than the croupal nature of the disease determines the diagnosis.

2d. *Laryngitis*—Laryngitis or inflammatory croup is, in the child, very often mistaken for membranous croup. The diagnosis is generally very difficult, but, in a practical point of view, important. I shall have occasion under a subsequent head to express my views of the difference in the nature of the two affections, and shall here consider only the question of diagnosis. Barthez and Rilliet remark that "the diagnosis in certain cases is so difficult that practitioners the most experienced have been and still will often be led into error."

The following is a comparative synopsis of symptoms from these authors:

PSEUDO-MEMBRANOUS CROUP.

Pseudo-membranous angina often precedes the invasion.

The symptoms of invasion exhibit generally less gravity, the fever is less intense, excitement less marked.

The raucity of the cough and hoarseness increase progressively.

The dyspnœa exhibits itself in violent paroxysms which often leave between them a manifest remission.

The febrile movement is rarely of a high degree of intensity.

The intellectual functions remain unaffected.

LARYNGITIS.

No preceding diptheritic angina.

The disease announces itself like the severe phlegmasiæ by very intense fever and great agitation.

The cough is very raucous from the onset; the severe hoarseness results in aphony.

The dispnœa exists from the beginning and augments progressively; very rarely attended by suffocative fits.

The fever is violent during the whole course of the disease.

Delirium and convulsions sometimes occur.

Laryngitis is attended with more pain, heat, and tenderness in front of the throat. The expectoration is frothy, ropy mucus. The only positive points of diagnosis, however, are the appearance of the false membrane upon the fauces, or its expectoration in the one disease and its absence in the other. We have not sufficient statistics to justify any conclusion with regard to the frequency of laryngitis in early life. Under Dr. Ware's observation its relative frequency to croup was as 18 to 22. The average duration of laryngitis in the child is much less than that of croup. Its career, more synochal in type, terminates, if fatal, equally as soon, and if favorable, much sooner than that of croup.

3d. *Laryngismus.*—Laryngismus, or the spasmodic croup of some authors, is more often confounded with membranous croup than any other disease. A large majority of those sudden attacks reported by some writers as violent cases of croup resulting in speedy cure, are doubtless only instances of laryngismus. It is, in its purity, a disorder of the diastaltic spinal system; or, according to Marshall Hall, it is rather a sympton than a disease, and may attach itself to many conditions, and appear in various grades of severity. It is a frequent attendant upon the process of dentition, and is referable then to irritation of the trifacial nerve. Irritation of the pneumogastric nerve from overfeeding or indigestion may also occasion it. Dr.

Ley relates cases in which it seemed to be occasioned by pressure on the pneumogastric from enlarged bronchial glands. Dr. T. G. Richardson of this city has met with a similar instance. In this latter form it is, according to Dr. Hall, "paralytic," persistent in its recurrences, and fatal. Under almost all other circumstances it ceases simultaneously with the removal of the exciting cause. It is more apt to appear in children of nervous temperament. The attack is liable to come on at night, sometimes recurring only at night, and manifesting occasionally a remarkable tendency to periodicity in its returns. I have notes of a case, recently witnessed, in which the paroxysms recurred within a short period of 7 o'clock, for three successive evenings. The advent of laryngismus is sudden, seldom preceded by catarrh, or any prodrome calculated to attract attention to the respiratory organs. The cough is more hoarse, raucous and sonorous than that of croup. The voice is hoarse and cracked, but never lost. The respiration is frequently very hurried and laborious; it reached 60 in a minute in a case under my observation. In laryngismus the inspiration is difficult, and expiration comparatively easy; in croup both acts are obstructed. The cyanosis, intermittent pulse, and reverted head are often as strongly marked as in the last stage of membranous croup. During the remissions of membranous croup, the cough and respiration, though moderated in their intensity, retain their pathognomonic character; while in the intervals of the paroxysms of laryngismus the patient is often almost entirely exempt from indications of disease. There is seldom persistent fever in laryngismus, though it sometimes occurs that an inflammatory element, general or local, is combined with the affection, and gives it a febrile type. Family idiosyncrasy will often assist in determining the diagnosis; if the patient or other members of the family have had laryngismus or infantile convulsions, the presumption will be strong that the present is a convulsive affection. There is no appearance of false membrane upon the fauces in laryngismus, nor expectoration which would justify the belief that such exudation had existed in any part of the tracheal course. Dr. Churchill is of the opinion that the disease may, by neglect, be converted into membranous croup, but the records of medical science are so barren of such instances that we may consider their rare occurrence as simply an accidental blending of the two affections. This malady should, in our opinion, be regarded as a complication, but not a variety of croup.

4th. *Diptheritis, or Secondary Croup.*—This affection possesses so many symptoms in common with idiopathic croup, and so few of striking contrast, that I am confirmed in the opinion that they are true congeners, and should be classed as such. Dr. David Welsh, in an account of diptheritis which appeared in the Ohio Med. and Surg. Journal, May, 1850, gives the following symptoms of invasion: "The constitutional symptoms were generally vague and deceptive at the outset, there being but little to attract the attention of the careless observer—generally nothing more than apparent lassitude with a dullness of expression and slight tendency to somnolency, and generally moderate febrile excitement and derangement of the secretions; the patients complaining little or none." The first local manifestation, as an idiopathic croup, is upon the fauces. There first appeared blotches upon the mucous membrane and "very soon there could be seen concretions forming upon the inflamed surfaces, first in small circumscribed patches of irregular shape, not very dissimilar to patches of curdled milk, of varying shades of color, at other times of a dirty bluish tint. As the inflammation went on, these inspissated concretions spread and coalesced, presenting the appearance of false membranes, sometimes covering the entire pharynx and velum palati."

Although the point of local development in these two affections is the same, their mode of progression differs somewhat. That of croup, as we have seen, is nearly always from above downwards, while that of diptheritis is very often in different directions. The exudation of diptheritis differs from that of croup in its greater tendency to occur at first in insulated patches, and by its greater aptitude to exhibit itself upon blistered, abraded, or ulcerated surfaces. The esophagus, stomach and vagina are occasionally seats of its development. The exudation is also softer, and undergoes decomposition earlier than that of croup. Diptheritis is a more ataxic condition of disease than croup, and is often attended with fœted breath, diarrhœa, and well marked typhoid indications. The fœtor of the breath, and probably the diarrhœa, are due to the putrefaction of the deposit, (Empis). More or less swelling of the submaxillary glands is said to be always present. Diptheritis is epidemic in its tendencies, and sometimes impresses large districts with its influence. It has occasionally appeared to be contagious, but this point is not positively established. The history of the case and prevalent diathesis may serve to establish the diagnosis previous to the invasion of the larynx; after that event, the disease may,

for all practical purposes, be regarded as one of the true croup, subject to the same laws of prognosis and treatment.

Nature.—The nature of croup is a subject so difficult of explanation, that farther investigations seem to be yet required to settle beyond question some points of its pathology. The idea has long been held by most of the profession, that it is purely a local inflammation, differing only in degree from simple acute laryngitis. Others again have taken the ground that the expression of inflammatory symptoms, either local or general, has not so much agency in determining the presence or absence of false membranes, as its accidental dislodgement from the throat by expectoration. I am not prepared to deny that this latter circumstance may not occasionally prevent the concretion of the exudation, but that it has any just claim to be considered as the sole cause, or even a common cause, of the difference between croup and laryngitis, is, I think, a matter of inference only, and not of proof. I do not think the phenomena of croup will support either of the above conclusions. On the contrary, many of them clearly point to an essential difference in the character of these affections—a difference which does not regard the intensity or extent of the inflammation so much as the state of the system at the time of its incursion. Without attempting to discuss this question as fully as its importance demands, I shall trust the safety of my conclusion to one or two points of contrast between croup and laryngitis, and to the opinions of the distinguished pathologists upon whose researches it is based. If, with a view to comparison, laryngitis be taken as the type of a local inflammation in a normal state of the constitution, the deviations of the croup from the standard are shown by the following facts: 1st. That traumatic inflammations of the larynx do not result in croup. Barthez and Rilliet quote an exception, it is true, where the child of a druggist died of croup from inhaling the vapor of muriatic acid; but as far as my researches have been made, this is the only case of the kind on record, and I am disposed to regard it as a mere coincidence of cause and predisposition. Scalds of the glottis sometimes gives rise to an exudation, but it is confined to the points of primary lesion, and does not, like that of croup, extend continuously over large surfaces of membrane. 2d. Although fibrinous exudation relieves local inflammation, as Rokitansky and others have shown, yet the tendency of croup membrane is to reproduce itself when forcibly removed from a surface; this would not be likely

to occur if the disease were purely local. 3d. In croup, exudation upon ulcerated or abraded surfaces are not very uncommon; in laryngitis, they never occur.

These differences in character appear to me to be explicable only by the supposition of a constitutional diathesis in croup, and are, I think, best accounted for by the teachings of the Vienna school of pathology, to which, however, my limits will allow only a brief allusion. Rokitansky contends that croup is but the local manifestation of a constitutional disorder, and supposes this derangement of the constitution to be a deviation from the normal state of the fibrine of the blood. He denominates this condition the "fibrine crasis," and supposes the change may be either qualitative or quantitative. Dr. Mauthner of Vienna says: "that increase of, and qualitative changes in the fibrine of the blood are found to be favorable conditions for the occurrence of croupose products is not to be denied, since it is a clinical fact, that, in many cases, such a state of this fluid precedes the local affection. But our knowledge concerning the blood crasis, being yet very imperfect, it may occur to the most experienced that croupose exudation shall be formed, of whose existence he is ignorant, or only knows when too late." The causes and nature of this pre-existent crasis in croup look to future observations for their establishment. Dr. Theophilus Thompson seems to regard super-fibrination of the blood as a cause of fibrinous exudation, and supposes excessive use of animal food likely to produce this state of hyperinosis. If this supposition be correct, it may in part account for the frequency of croup among children who are taken early from the breast, and fed upon diet of this description. It may also account, in part, for the increased prevalence of croup in Kentucky during the latter part of 1854, when, from the extreme dry weather, the supply of vegetables was deficient, and a greater resort to animal food necessarily induced. The same causes existed to produce an epidemic croup under the observation of Dr. Vauthier in Paris during the year 1846–7. However little we are able to say positively upon this subject, we know that the state of respiration in croup is not favorable to the increase of fibrine, and if its excess in the blood be found to exist in that disease, the inference is very strong that the increase occurred at least prior to the obstructed respiration.

It may be stated then that while catarrhal hyperæmia of the throat and larynx may be equally the exciting cause of croup and laryngi-

tis, the pre-existent crasis is the cause that determines the nature of the disease. I would account for its great prevalence among children by reference to the following circumstances: 1st. The mal-adaptation of diet to the systemic wants of children induces more frequent derangement of the constituents in their circulating fluids. 2d. The greater frequency of catarrhal irritations, as exciting causes. 3d. The greater tenuity of the mucous membrane and the walls of its terminal vessels in children, is more favorable to the exudative process. The converse of this, combined with a greater laxity of the sub-mucous areolar tissue in the adult is more favorable to infiltration beneath (œdema glottidis) than to exudation upon the membrane. 4th. In the adult, the greater calibre of the larynx, and ability to expectorate, favor the expulsion of the exudation prior to its concretion.

With regard to the formation of the false membrane, Rokitansky says, "from analogy, it is probable that at the commencement of the process a serous fluid is effused, by which the epithelium of the diseased mucous membrane is destroyed, and that the exudation of the plastic matter takes place afterwards." When the system is in a sthenic condition and the local inflammation not intense, the exudation assimilates, in its power of organization, more to the blood plasma, and its concretion is more perfect. The converse is equally true, for we observe in diptheritis, where the local inflammation leads to ulceration, as it does not unfrequently, and the state of the system is asthenic, the exudation has a more feeble power of organization, is soft, of a semi-purulent character, and undergoes rapid decomposition. The strong disposition this exudation manifests to pass from the pharyngeal to the laryngeal surface has not been explained. Empis supposed that exposure to air was more favorable to the exudative process, which, if correct, may serve to account for this preference. These observations are, I think, important to a knowledge of the nature of croup.

Laryngismus is also an important element in the nature of croup, with which it is always more or less combined, and upon the character of which it stamps, more or less completely, its own impress. The periodic exacerbations of croup, and the aggravation of its symptoms under emotional excitement, are undoubtedly due to this spasmodic complication. The best explanation that can be offered of the tendency of croup to nocturnal announcement and aggravation, is that given by Marshall Hall, and quoted by Dr. Newman.

"Volition has a constant influence over some of the muscular actions, of which we are almost unconscious, and which we only discover by carefully observing the effects of its subtraction. The acts of respiration, originating as they do in the reflex function of the spinal cord, are nevertheless regulated and rendered equable by the silent but constant influence and agency of volition." Thus, during the withdrawal of volition in sleep, the laryngeal muscles are more amenable to spasmodic influence, and by their irregular contraction produce the dispnœal fits. During the latter stages of croup, convulsions occasionally occur, ascribable no doubt in many instances to a poisoned state of the blood from retained carbon.—*Louisville Review.*

Art. IV.—*Cæsarian Section.*

Among the notable events of the last few months, we should not neglect to include the first Cæsarian operation ever performed in this state, resulting in the recovery of both mother and child. This surgical feat has been achieved by our friend and fellow-townsman Dr. Charles S. Mills, who performed the operation of hysterotomy on the person of a negro dwarf during the month of May last, with entire success.

The subject of this operation is about twenty-three years old, and not more than three feet nine inches in height. The upper portion of the body is very well developed, the arrest of growth being confined entirely to the pelvis and lower limbs. The probable necessity for the operation had led the family physician to propose the induction of premature delivery, but his advice was not followed, and on arriving at full term, the extreme contraction of the pelvis prevented any doubt as to the true course to be pursued.

The operation, which was performed under the influence of chloroform, and at night, presents no features of peculiar interest. The happy effects of chloroform were exemplified in a marked degree, the viscera remaining perfectly quiet, not interfering as they usually do, in the progress of the operation. The case went on safely, without any symptoms likely to produce alarm, until crural phlebitis appeared about the eighteenth day after the operation, which, however, yielded to active treatment, and the woman, by the 7th of June, had entirely convalesced. During this period the infant had never required the interference of the physician.

It is with much pleasure that we record the entire success of this operation, the first to be found in the annals of Virginia surgery; and we will close these remarks with a short sketch of the various Cæsarian sections performed in this state, which we have been able at this time to collect, and their results.

Dr. HERNDON of Fredericksburg, in the year 1846, performed this operation for the purpose of taking away a dead fœtus from the womb. This case is remarkable for the fact, that on making the abdominal section, the peritonæum was found closely adherent to the uterus, and hence the operation was rendered remarkably simple, as the integrity of the abdominal cavity proper was not disturbed. The dead fœtus was extracted, and the woman *recovered.* This case is reported in the April No. 1846 of the American Journal of Medical Sciences.

Dr. SMITH of Northampton county, Virginia, performed the operation of hysterotomy in or near the town of Eastville some time during the year 1851. The particulars of this case will be reported in a future number of this journal. It resulted in the death of the mother, but the *child lived.*

The case of Dr. MILLS is the next in order, securing the safety of both mother and child; and a few weeks subsequent to the date of this operation, Dr. EDWARD DREW of this city was compelled to perform the Cæsarian section on the body of a negro dwarf whose pelvis was so extremely contracted as to prevent the possibility of a natural delivery. This case also will appear in our columns. It resulted in the death of the mother, the life of the child being saved.

Thus, in four operations, we have the recovery of the mother in two instances, and three children saved—the fourth (Dr. Herndon's case) having been dead for some time. We think it probable, however, that in a few months we will be able to collect the statistics of other operations of like character, which have been performed in Virginia in times gone by, and have, with characteristic neglect, been permitted to remain unrecorded.

The success of this operation in the hands of American surgeons has been remarkably great. Churchill, in his Tables of the Results of British and American Practice, gives *five* American operations, including Dr. William Gibson's famous case, on whom hysterotomy was performed *twice successfully.* These five cases resulted in the recovery of every mother and the safety of four children. But in

forty-seven British operations, we observe a loss of thirty-eight mothers!

The statistics of the European operations are more encouraging. In all Catholic countries, we find a greater inclination to the performance of this terrible operation at an early period, which may be attributed to the desire to preserve the life of the unbaptized infant. Indeed, there are cases of women who have submitted to the Cæsarian section, and afterwards have borne children per vias naturales. In the dictionaire of Fabre we find two hundred and ninety-three cases collected by Velpeau and Hœbeke. Of these, one hundred and thirty-four were saved. Thus, on the continent two-fifths of the women have recovered, and about three-fourths of the children saved.—*Virginia Medical Journal.*

ART. V.—*Discourses on Uterine Diseases.*

Whatever touches the uterus, medically speaking, of course, has the privilege of rousing the attention and interest of physicians and surgeons. The innumerable publications on this subject are always sure to find eager readers. The theme is apparently exhaustless, else it would long since have been exhausted. In the last thirty years, what frequent and terrible battles have been fought about the uterus! What has not been said or written about the poor organ? What has not been done to it above all? It has been cauterized with concentrated acids, potential salts, heated irons and galvanic contrivances of porcelain and platinum; it has been incised, impaled, injected, fumigated, mutilated, ligated, extirpated even; and all this for its own good, of course! We call women the weaker sex; we should like to know how the pretended strong sex would come out of such a course of delicate manipulation.

As discussions on uterine diseases have been mostly bitter polemics, so the treatises on the subject are chiefly of a controversial nature, filled with special pleading and exaggeration, and calculated to bewilder rather than to afford information. The consequence is that the majority of young practitioners, at least, have either unsettled or partisan views respecting this important class of affections.

In 1854, a discussion on the displacements of the uterus arose in the French academy, which soon extended so as to embrace the chief portions of uterine pathology. A meagre abstract of this interesting debate was presented to our readers at the time it occurred.

Though sufficiently animated, it was less passionate than some former discussions, and the leading men who engaged in it seemed anxious to record their sober judgment, rather than to urge their favorite theories or modes of practice. We have long desired to quote at length the opinions of some of the French academicians whose authority on this subject is justly respected, but have been unable to do so on account of the pressure of other matter. In the present number we insert the discourse of Professor Dubois, which will be succeeded by the orations of MM. Huguier, Velpeau, Cazeaux, etc., as fast as we can find room for them.

As a kind of introduction, we translate the following description of the academic orators, from the pen of Amédée Latour, the spirited editor of L'Union Médicale.

"Do you know that in this discussion there have been fourteen grand orations delivered by ten orators? My pen yearns to pass the speakers in review. But our profession in Paris has become so susceptible, so *touchy*, if I may be excused the expression, that I dare not venture on those innocent little criticisms which my readers used to receive so benevolently.

"What harm could it do, for example, for me to say:

"M. Depaul is an academician of great prominence, but he needs to habituate himself to those courteous forms of language which render criticism the more poignant as it is more polished. His talent for discussion is incontestable; but he would improve by giving more variety to his argument, by laying aside certain stiff and se t expressions, by refraining from following his adversary, sentence by sentence, by dwelling on important points and passing over details more rapidly. M. Depaul has one charming defect; he is young; he has time and opportunity to acquire more freedom in the tribune, greater facility in elocution, and more felicitous and appropriate forms of discussion. What his friends should chiefly urge on M. Depaul, is to bear contradiction calmly and patiently; this condition is indispensable at the academy, in anticipation of which, no doubt, it was indited in scripture: *Deus tradidit mundum disputationibus eorum.*

"M. Malgaigne requires no advice. His discourses are always agreeable, spicy and keen; too keen, sometimes, for the austere accuse him of occasionally forgetting the precepts of charity and the rules of good taste. What I should like to correct in M. Malgaigne is his declamation. He indulges in vocal outbursts, boisterous inton-

ations, bursts of pulmonary thunder, which the placid subjects of discussion do not always justify. Whoever had entered the academy last Tuesday, for example, at a certain period of M. Malgaigne's speech, would have thought that he heard a vehement apostrophe against some new Cataline, and would have been greatly astonished on learning that the noisy eloquence was addressed only to the speculum. But apart from these little defects, which only prove that M. Malgaigne has not taken lessons in declamation like some of his colleagues that I could name, what pungency, what wit, what brilliant facility in the orations of this academician! What a marvelous aptness! Speech is to him like a docile instrument which evolves the most varied sounds. He holds the audience for hours under the charm of that clear, accentuated elocution, now vehement, then sarcastic, here grave and lofty, there lively and biting, always correct, often elegant and redolent of that literary charm,

'Now a days, alas! so rare.'

"M. Huguier is accused of making his speeches too didactic; they say he speaks like a pedagogue. This is partly true. One too quickly recognizes in this orator the professor who has been long in harness at the *Ecole Pratique;* who has all his life been surrounded by pupils whom he was initiating into the elements of their art. M. Huguier excels in extracting a question from philosophic heights and fixing the discussion on useful and practical applications; his mind delights in details rather than generalities, in facts rather than principles; he is not ambitious of establishing therapeutical or pathological *laws;* on the contrary, he divides and subdivides morbid conditions, seeking to assign to each variety its causes, symptoms and treatment.

"M. Hervey de Chegoin does not court oratorical success; a slight impediment in speech forbids it. When this honorable academician engages in the discussions, which is rarely, he writes a few pages very judiciously conceived, and has them read by one of his colleagues; and this modest participation is always received with the greatest consideration by the academy, which knows and appreciates the practical good sense and vast experience of M. Hervey.

"M. Paul Dubois is, of all the academic orators, the one whose discourses are strikingly characterized by that extreme courtesy and scrupulous politeness, the absence of which is elsewhere felt unpleasantly. That slow and unctious utterance, that studied preference for the most prudent and reserved expressions, that constant care to

use not a single word or gesture under the impulse of emotion, that visible solicitude as to the interpretation which may be given to his language, that obvious apprehension lest he may go beyond what he really wishes to say, all this impresses a peculiar character on the discourses of M. Dubois. It is not always easy to seize the real thought of the skillful orator under the triple veil which envelopes it—a soft and silken veil, strewn with charming ornaments, which seem placed artistically to distract attention, or to deaden the sting of a criticism which is very penetrating notwithstanding. Long before the discovery of anæsthesia in surgery, M. Dubois invented anæsthesia in criticism, that is, the precious art of mutilating the discourse or doctrines of an adversary beyond redemption, without giving him the slightest pretext for complaint or recrimination.

"M. Cazeaux is distinguished by opposite characteristics. As an orator, he is perfectly parliamentary, but very sharp and decided. He comes at once to the gist of a question, without noticing preliminaries. His argumentation is searching and rigorous; he is of the positive order; he cares little for accessories and ornaments; he presses forward to the main issue; his criticism is straight-forward and plain; nothing is concealed or softened down. It is the old Gaulic manner, harsh perhaps, but frank and devoid of subtlety or malice.

"M. Gibert has the palm among orators of the wrathful order. His discourses are satires, in which each word is an epigram. Living in wrapt contemplation of ancient science, the worship of Hippocrates absorbs all his admiration. Modern progress is a fiction, a fable, an illusion. In vehement irritated accents, he makes short work of its pretensions. What we are surest of is that nothing is to be known outside the hippocratic canon. M. Gibert arranges all this with a certain art, with much tart and pungent wit, and the effect of his discourses is always racy and agreeable.

"M. Velpeau, of all the orators at the academy, is the one whose speeches show the least indications of labor and preparation. Always sure of what he wishes to say, the great surgeon pays little attention to the manner of saying it, and this carelessness of forms, which would be perilous for others, is in him attended by almost constant success in the tribune. Every body loves the informality of his discourses, his familiarity, his readiness, the playful irony of his argumentation, and his biting and witty criticism. He can speak for a long time without wearying the auditory, such is his faculty of

captivating the attention, without declamation or any artifice of rhetoric, simply by the resources of an argument always guided by good sense, and ever and anon enlivened by some sly jest. Not that M. Velpeau does not debate with skill and adroitness; but there is nothing artificial in it; he is logical naturally, by the force of his keen intellect, without studying the rules of ratiocination.

"Here, good gracious! is what the *feuilleton* might have said, in the good old time, when academicians were so delightfully tolerant, and smiled at its innocent little chat. But, now-a-days—no, indeed!" —*Virginia Med. Journal.*

ART. VI.—*Ricord and his Patient.*

The following sprightly feuilleton is from the pen of Dr. Schlesinger, a Paris correspondent of the Vienna Medical Times:

I had an opportunity of observing a case in the private practice of Prof. Ricord, and the communication may not be uninteresting, when viewed from the stand point of unus pro multis. A young countryman had enjoyed the seductive charms of beautiful Lutaetia, and had studied the manner of living of the French, particularly in those large schools at Mabile, Jardin d'Hiver and Asnieres, and indeed had become so immersed in his favorite study, that he bore away, as a final prize—a gonorrhœa. The martyr to these studies had already been, when I arrived in Paris, for seven weeks in undisputed possession of this enviable acquisition. Ricord was his physician. During this time he had made twenty visits to Ricord, and received six visits from him. For the former, Ricord received each time the usual honorarium of twenty francs—for the latter, forty francs. The doctor's bill alone was 640 francs. But the gonorrhœa, at the end of the seventh week, was still—in floribus. Besides the doctor, the apothecary had profited, in this right French article, from 120 to 150 francs. Ricord writes recipes, many, very many recipes, daily changing them, and daily making them more costly. He says, you can have these put up by any favorite apothecary, "mais le Pharmacien Favrot, Rue Richelieu, connait, deja mes ordonnances." The hint is as good as a command. You go then to Favrot, Rue Richelieu. And our countryman went there also. Ricord had prescribed already, by turns, tisans, limonade gazeuse purgative, capsules de cubebe, capsules de copahu, copahine mege ferree prep., different syrups, baths and costly perfumed injections, when, in addition to the gonorrhœa, slight symptoms of the commencement of

use not a single word or gesture under the impulse of emotion, that visible solicitude as to the interpretation which may be given to his language, that obvious apprehension lest he may go beyond what he really wishes to say, all this impresses a peculiar character on the discourses of M. Dubois. It is not always easy to seize the real thought of the skillful orator under the triple veil which envelopes it—a soft and silken veil, strewn with charming ornaments, which seem placed artistically to distract attention, or to deaden the sting of a criticism which is very penetrating notwithstanding. Long before the discovery of anæsthesia in surgery, M. Dubois invented anæsthesia in criticism, that is, the precious art of mutilating the discourse or doctrines of an adversary beyond redemption, without giving him the slightest pretext for complaint or recrimination.

"M. Cazeaux is distinguished by opposite characteristics. As an orator, he is perfectly parliamentary, but very sharp and decided. He comes at once to the gist of a question, without noticing preliminaries. His argumentation is searching and rigorous; he is of the positive order; he cares little for accessories and ornaments; he presses forward to the main issue; his criticism is straight-forward and plain; nothing is concealed or softened down. It is the old Gaulic manner, harsh perhaps, but frank and devoid of subtlety or malice.

"M. Gibert has the palm among orators of the wrathful order. His discourses are satires, in which each word is an epigram. Living in wrapt contemplation of ancient science, the worship of Hippocrates absorbs all his admiration. Modern progress is a fiction, a fable, an illusion. In vehement irritated accents, he makes short work of its pretensions. What we are surest of is that nothing is to be known outside the hippocratic canon. M. Gibert arranges all this with a certain art, with much tart and pungent wit, and the effect of his discourses is always racy and agreeable.

"M. Velpeau, of all the orators at the academy, is the one whose speeches show the least indications of labor and preparation. Always sure of what he wishes to say, the great surgeon pays little attention to the manner of saying it, and this carelessness of forms, which would be perilous for others, is in him attended by almost constant success in the tribune. Every body loves the informality of his discourses, his familiarity, his readiness, the playful irony of his argumentation, and his biting and witty criticism. He can speak for a long time without wearying the auditory, such is his faculty of

captivating the attention, without declamation or any artifice of rhetoric, simply by the resources of an argument always guided by good sense, and ever and anon enlivened by some sly jest. Not that M. Velpeau does not debate with skill and adroitness; but there is nothing artificial in it; he is logical naturally, by the force of his keen intellect, without studying the rules of ratiocination.

"Here, good gracious! is what the *feuilleton* might have said, in the good old time, when academicians were so delightfully tolerant, and smiled at its innocent little chat. But, now-a-days—no, indeed!" —*Virginia Med. Journal.*

ART. VI.—*Ricord and his Patient.*

The following sprightly feuilleton is from the pen of Dr. Schlesinger, a Paris correspondent of the Vienna Medical Times:

I had an opportunity of observing a case in the private practice of Prof. Ricord, and the communication may not be uninteresting, when viewed from the stand point of unus pro multis. A young countryman had enjoyed the seductive charms of beautiful Lutaetia, and had studied the manner of living of the French, particularly in those large schools at Mabile, Jardin d'Hiver and Asnieres, and indeed had become so immersed in his favorite study, that he bore away, as a final prize—a gonorrhœa. The martyr to these studies had already been, when I arrived in Paris, for seven weeks in undisputed possession of this enviable acquisition. Ricord was his physician. During this time he had made twenty visits to Ricord, and received six visits from him. For the former, Ricord received each time the usual honorarium of twenty francs—for the latter, forty francs. The doctor's bill alone was 640 francs. But the gonorrhœa, at the end of the seventh week, was still—in floribus. Besides the doctor, the apothecary had profited, in this right French article, from 120 to 150 francs. Ricord writes recipes, many, very many recipes, daily changing them, and daily making them more costly. He says, you can have these put up by any favorite apothecary, "mais le Pharmacien Favrot, Rue Richelieu, connait, deja mes ordonnances." The hint is as good as a command. You go then to Favrot, Rue Richelieu. And our countryman went there also. Ricord had prescribed already, by turns, tisans, limonade gazeuse purgative, capsules de cubebe, capsules de copahu, copahine mege ferree prep., different syrups, baths and costly perfumed injections, when, in addition to the gonorrhœa, slight symptoms of the commencement of

an epididymitis appeared, and he ordered the application of fifteen leeches. The Pharmacien Favrot, Rue Richelieu, is a French tradesman, in the most gallant and refined sense of this significant word. He takes the recipe, and tells the young man that he will send the leeches, with suitable accompaniments, to the hotel. Now comes a pretty demoiselle with an elegant carton. Therein are to be found leeches, linen, charpie, sponge, sticking plaster, suspensory, syringe, scissors—in short, every thing that a man in such a condition could desire for weal or woe, and every thing is nice and tasteful. The pretty bearer of this Pandora's box is the "Nourrice." The nourrice is the attendant, the leecher. The young man is taken aback—the feeling of shame suddenly comes to him. She discovers it and says; "Eh! vous avez honte, allez vous en' j'ai deja vu ca depuis mon enfance mille et mille fois." I have confidence in her veracity.

In addition to the usual quick irritability of the genitals during a gonorrhœa, the pretty nourrice, although she understands how to treat the corpus delecti with practiced and very delicate hands, yet still remains a—pretty nourrice. The nourrice laughs maliciously, and relates, during the application, some most charming little stories out of the chronique scandaleuse of the Parisians. She knows many a piquant tale even about the doctor and the apothecary.

After a few days, the apothecary's bill comes in, 80 to 100 francs for the carton, its contents, and the messenger. I have in my possession such recipes and bills. The circumstance that the apothecaries in France, as in England, have a care for every thing that a man requires in such a gallant condition, has also its bright side, since the patient is not obliged to run to ten places before he collects his curative apparatus. This makes a wearisome day. In our country, the apothecary would be sued for damage to business, on account of the linen by the linen draper, of the sponge by the grocer, of the knife by the cutler, of the suspensory by the bandage maker, of the syringe by the glass blower or pewter worker, and the board of trade and the magistrate would have their trouble!

After I had been in Paris five weeks, in the twelfth of the gonorrhœa, the young man was still not rid of his dear companion—he was very morose, not able to continue his studies, and had expended there a sum of 1,200 francs on the doctor and the apothecary. A pretty outlay of capital, with—*running* interest.—*American Med. Monthly*

PART THIRD.

BIBLIOGRAPHICAL NOTICES AND REVIEWS.

The Obstetric Memoirs and Contributions of James Y. Simpson, M. D., F. R. S. E., Prof. of Midwifery in the University of Edinburgh, etc., etc. Edited by W. O. PRIESTLY, M. D., Edinburgh, formerly Vice President of the Parisian Medical Society, and HORATIO R. STORER, M. D., Boston, U. S., one of the physicians to the Boston Lying-In-Hospital, etc., etc. Vol. 2. Philadelphia: Lippencott & Co., 1856. pp. 718.

This, as the reader will notice, is the *second* volume of Prof. Simpson's Contributions to the subject of Obstetrical Science. The former one, noticed only a few months since in the Journal, and this, make up a very full expose of the subjects, primary and collateral, to midwifery. The present volume contains essays on

"The Pathology of the Puerperal state;

"The Physiology and Pathology of the Products of Conception; and

"The Pathology of Infancy and Childhood."

Besides, there is added a number of papers on Anæsthetics in Midwifery, Surgery, etc. Some of these papers on Anæsthesia have already appeared in this country, but they have lately been revised by the author, with such additions as the progress of experiments seemed to require. A number of the papers are entirely new, as for example the one entitled the "Morphology of the Male Uterus, and on the Unity of the Organic Type between the two Sexes;" "The Rudimentary Reproduction of Extremities after their Spontaneous Amputation;" "The Practical Application of Chloroform as a Topical Anæsthetic to Mucous and Cutaneous Surfaces," etc.

The work, indeed, abounds with essays, philosophical, experimental and practical, the doctrines of which may not all be subscribed to by the reader, but we cannot avoid being improved by giving them a consideration.

As a sample of the work, we insert the following on "The Topical Use of Chloroform:"

"On the Practical Application of Chloroform as a Topical Anæsthetic to Mucous and Cutaneous Surfaces.—In 1848, the preceding essay on local anæsthesia and its artificial production by chloroform, &c., was printed in two English medical journals.

"In 1853, Dr. Hardy, of Dublin, published in the November number of the Dublin Quarterly Journal of Medical Science, an interesting communication on the same subject entitled, 'On the Local Application of the Vapor of Chloroform in the Treatment of various Diseases.'

"The principal peculiarity in Dr. Hardy's essay consisted in the proposals of a special valved instrument—the Anæsthetic Douche as he termed it—for the purpose of applying in an intermittent stream, the vapor of chloroform to any part or surface that was wished to be affected.

"But in projecting a stream of chloroform vapor upon any point, I have generally made use merely of a common enema syringe, and it will be found, I believe, to serve as well, if not indeed better, than any of the complex and expensive special instruments invented for the purpose. In fact, a large and more powerful stream of vapor can be kept up by an enema syringe than by any of the special anæsthetic douches which I have seen.

"Any of the usual forms of pea-valve enema syringe will answer the purpose, provided their lower or receiving extremity be immersed in the vapor of chloroform, and the instrument worked in the usual way employed for the transmission of water or other liquids. The vapor of chloroform, &c., or rather of air loaded with the vapor, passes readily through the canal of the syringe, and is projected in an intermittent stream from its orifice.

"The syringe which I have generally used for this purpose is the barrel syringe of Mr. Higginson. It consists of three pieces of caoutchouc tubing, the middle or thickest portion being provided at either extremity with the common pea or ball valve, and altogether forms, in my opinion, by far the simplest, most durable, and at the same time the cheapest description of syringe yet suggested for injecting fluids into the rectum or vagina. When used for the transmission of chloroform vapor, it requires to be worked in the usual way for the transmission of liquids, but with its lower or inferior extremity placed in air loaded with the vapor of chloroform. In order to effect this last arrangement, all that is necessary is to place

this lower extremity of the instrument in the neck of a phial or bottle containing liquid chloroform. The lower extremity of the barrel enema syringe is generally made of the size and form of the two last joints of the little finger; and the tube is encircled with a projecting ridge or shoulder above this point. When employed as an anæsthetic douche, this finger-like end of the instrument is passed into the neck of a chloroform bottle sufficiently large to admit it easily; whilst at the same time the circular projecting ridge of the tube rests on the mouth of the phial. For this purpose the common six-ounce phial or bottle, with a mouth four or five lines wide, answers perfectly. An ounce of chloroform placed in the bottom of the phial will enable it to serve as an anæsthetic douche for a long time. Before using it, the shaking of the bottle will impregnate the air in it more thoroughly with chloroform vapor. When patients themselves employ the syringe and bottle, perhaps it will be found necessary to explain to them that they are not to inject the liquid chloroform through the tube, but only the vapor of it, or rather air loaded with the vapor.

"The preceding simple arrangement converts a common enema or vaginal syringe into an anæsthetic douche, equally, or indeed, more powerful than the ingenious instrument specially invented by Dr. Hardy for the purpose. As a proof of this, let me merely state, that in various trials upon various individuals, I have never seen the stream of vapor from Dr. Hardy's instrument, when fully charged, produce a state of general anæsthesia when the jet from it was projected into the mouth; but I have found that result to follow in some instances when the same experiment was made with a stronger and more sustained stream of chloroform vapor sent through the common syringe.

"When the inferior end of the enema syringe employed is of such a shape that it will not pass into the neck of a bottle containing chloroform, other arrangements may be required to supply it with chloroform vapor. For this purpose the lower end of the syringe may be placed upon the hollow of a concave sponge bedewed with chloroform; or a piece of lint, flannel, or the corner of a handkerchief, or other such material, freely wetted with it, may be lightly rolled around the lower extremity of the instrument. Sometimes, with the same view, I have placed the end of the syringe in the bottom of a cup or tumbler in which there was a bit of sponge or lint soaked with chloroform; for the vapor of chloroform being

nearly four times heavier than atmospheric air, fills always the lower part of such a vessel. By any of these means, a sufficient quantity of chloroform vapor can be supplied to fill the instrument, and to make a stream of it pass from its superior orifice, when the syringe is worked in the usual manner for transmitting liquids.

"I have used the injection of chloroform vapor into the vagina by the preceding method in many cases of painful and neuralgic conditions of the uterine and pelvic organs. In most instances, after the first sensations of warmth produced by the injection have passed away, relief has been found to follow for a greater or less length of time; and to sustain this state of freedom from suffering, the injection has generally required to be repeated by the patient after the lapse of a few hours. This treatment has appeared to me more particularly useful in neuralgic states of the uterine organs and passages; in those organic diseases that are occasionally accompanied with sufferings, as carcinoma uteri; in some cases of severe feelings of bearing down, and incapacity to stand and walk, complicated with displacements and enlargements of the uterus; and in various spasmodic conditions of the uterus attended with pain, as in threatened abortions; in after-pains; and most markedly in severe dysmenorrhœa. But at the same time I would beg to remark that in various instances in which the preceding morbid states were present, and in which I fully expected the usual anodyne effect of the vapor to be experienced, the treatment has failed to give the usual relief; probably because the mere superficial anæsthesia which results from the anæsthetic vapor was not sufficient in depth or in degree to produce an anodyne effect. In other instances, on the contrary, in consequence, perhaps, of the peripheral extremities of the nerves distributed to the genital mucous surface being specially effected, or having a special reflex influence upon the deeper-seated parts and pains, the chloroform vapor has succeeded not only in producing temporary relief, but in producing even a speedy and permanent cure, under circumstances where the previous duration and severity of the symptoms seemed, a priori, to forbid the hope of a restoration to health by this means alone. I had, for example, lately under my care, a patient who, in consequence of severe pelvic or uterine pain, had been obliged to keep the supine position upon the bed or sofa for nearly six months previously. All attempts at standing or walking brought on renewed paroxysms of suffering. The uterus was slightly retroverted, but

otherwise apparently healthy. After being brought with some difficulty to Edinburgh from a distant part of England, the only treatment to which she was subjected, consisted of the injection of chloroform vapor several times a day into the vagina, which at once relieved, and ultimately altogether removed the uterine pains.—Within a week, the morbid sensibilities of the parts entirely disappeared. There was about a month subsequently a short relapse, in consequence of indiscretion in exercise and exposure to cold, but the attack speedily yielded to the same treatment. I never had the pleasure of watching such a speedy and perfect restoration to health and happiness from that state of hysteraluia which so often entails upon patients misery and suffering for long months and years.

"I have repeatedly applied chloroform to the maternal passages during labor in cases of rigidity of these passages, and particularly in rigidity of the cervix uteri when co-existing with morbid irritability and sensibility of the parts. In these instances I have used sometimes the chloroform vapor injected by the usual means; sometimes a few drops of fluid chloroform mixed up with oil, or with a small solid mass of butter or ointment. The practice has appeared to me to be very often followed by two beneficial results; first, the abatement of the supersensibility of the maternal canals; and secondly, very often also with an increased secretion of mucus, and apparently an increased susceptibility to relaxation and dilatation in the rigid structures.

"In the preceding remarks I have hitherto spoken of chloroform when applied as a local anæsthetic to the genital mucous canals. Its local anæsthetic action on other mucous surfaces has not yet been much studied. I have seen, however, the injection of the vapor of chloroform into the rectum, useful also in some instances of morbid irritability and sensibility of the lower end of the intestinal canal, in tenesmus, &c. The mucous membrane of the eye seems in most individuals—especially in its diseased states—too irritable to bear the contact of very concentrated chloroform vapor, such as I employed in some early experiments alluded to in the last chapter; but in case of photophobia and supersensibility to light connected with scrofulous ophthalmia, &c., the vapor of choloroform diluted with air or aqueous vapor, acts sometimes very markedly and beneficially as a local anæsthetic. I have seen the intolerance of light connected with ulcerative corneitis at once relieved by ex-

posing the eye to the vapor of chlorform, raised by pouring a small quantity of the fluid into a cup of warm water. The patient will thus sometimes immediately be enabled to open the eye freely and without pain; and the chloroform vapor often serves also as the best possible medicinal application to the ulcerated surface. The dentist can occasionally relieve the pain of toothache, by the local anæsthesia resulting from the application of a drop of fluid chloroform to the exposed interior of the tooth; or by directing a stream of chloroform vapor upon it. In painful and spasmodic states of the respiratory canals, when chloroform is applied to their mucous surfaces by inhalation, it is difficult, or indeed, impossible, to tell always whether the resulting relief is the effect of local or of general anæsthesia. In some cases of spasmodic asthma, relief is occasionally obtained by doses too slight to have acted by any general anæsthetic effects; but I have seen other instances of the same disease where the paroxysm was not effectually arrested till a complete state of general anæthesia was produced. A similar observation holds true with regard to different cases of laryngismus. Sometimes that troublesome affection, hysterical or spasmodic aphonia, is at once cured by a few inhalations of chloroform vapor, acting perhaps as much upon the principle of a local as of a general anæsthetic. The irritability of the cough in cases of phthisis, bronchitis, pneumonia, &c., is often effectually relieved by doses apparently too small to have acted otherwise than as local anæsthetics. Lastly, in reference to the topical anæsthetic influence of chloroform upon mucous membranes, let me add, that the swallowing of a few drops of fluid chloroform in oil, cream, soda water, or any other convenient vehicle, sometimes speedily abates nausea, vomiting, obstinate hiccup, &c.—perhaps upon the principle of its acting as a local and limited anæsthetic upon the walls of the stomach.

"The preceding observations are limited to the local anæsthetic effect of chloroform upon mucous surfaces and canals. On the skin it produces a topical action, similar in principle, but far less in degree. When the epidermis is removed, or when the skin itself is destroyed, the surface of any existing sore, such as an irritable abrasion, an excoriated nipple, or a benign or carcinamatous ulcer, can be very remarkably anæsthetized and benumbed by the local application of chloroform vapor; but the feelings of great heat and pain, which in the first moments accompany its application, more than counterbalance, in most subjects, the subsequent sedative effects

derivable from its use. The various experiments which I have detailed in the preceding essay, show that chloroform fluid or vapor, when applied to the unbroken human skin, produces a degree and depth of local anæsthesia, that is sufficiently great to be sometimes useful in medicine, while it is not sufficiently great to be useful in operative surgery. In medicine, for example, the local auæsthetic effects of chloroform often prove most beneficial in local neuralgia, local rheumatism, &c.; and chloroform mixed with equal, or with varying parts of olive oil, according to the sensitiveness of the patient's skin, is sometimes, in such cases, the most efficient form of cutaneous topical anodyne which we can employ. The amount of local anæsthesia, however, capable of being produced, is not, as I have just stated, by any means deep enough to enable the patient to endure any operative or surgical procedure. In the earlier part of 1854, however, a variety of experiments were made in the Parisian hospitals, under the full belief that a stream of chloroform vapor projected against the skin might produce such an amount of local anæsthesia in any given part of the cutaneous surface, as would allow that surface to be cut or operated upon by the surgeon, without pain to the patient. Dr. Hardy's anæsthetic douche, or some modification of it, was the instrument usually employed in these experiments. Several alleged cases of the perfect success of this local cutaneous anæsthesia were published in the French journals. It was averred, for example, that M. Dubois had opened with the knife, and without pain, an abscess in the axilla, that M. Nelaton opened an abscess in the foot—the vapor of chloroform having in each case been previously applied to the skin; and that M. Danyan also without pain, made a caustic issue on the neck—the skin being prepared by the anæsthetic douche. But additional trials very speedily proved the inutility of the practice, as far at least as the possibility of producing by it immunity from the pain of surgical operations was concerned. At the end of these trials, in commenting upon the subject in the Parisian hospitals, M. Latour, the learned editor of the Union Medicale, observes—'I have felt, I avow, distressed and humbled with all the noise that has been made, and with the recital of all the numerous experiments that have been tried in this matter. I have not desired to accumulate the record of them in this journal; and I would wish that all trace of these facts were, for the honor of the French physiology, blotted out as speedily as possible.'

"In fact, the whole of these experiments and inquiries into the possibility of producing a sufficient amount of local anæsthesia for surgical purposes, by applying chloroform to the unbroken skin, resulted in the conclusion which I had already ventured to publish several years previously, namely, that "in the human subject, partial, and perhaps superficial local anæsthesia of a part, as the hand, can be produced by exposing it to the stronger vapor of chloroform; but the resulting degree of the local anæthesia is not sufficiently deep to allow the part to be cut or operated on without pain."—(Feb. 1856.)

An Analytical Compendium of the various branches of Medical Science, for the use and examination of Students. By JNO. NEILL, M. D., Surgeon of the Pennsylvania Hospital, Fellow of the College of Physicians, etc.; and FRANCIS GURNEY SMITH, M. D., Physician to the St. Joseph's Hospital, Fellow of the College of Physicians, etc. A new edition, revised and improved; with three hundred and seventy-four illustrations. Philadelphia: Blanchard & Lea. pp. 974. (For sale by Riley & Co.)

The speedy sale of two large editions of this work, has afforded to the authors some evidence that their labors have been appreciated. In getting up this, the authors say in their preface, that they have spared neither time nor labor in embodying in it such discoveries and improvements as have been made since the appearance of the last edition. Modifications in most of the departments have been made, and such new illustrations introduced as have been suggested by the practical use of the work in the class and examination room.

The Principles of Surgery. By JAMES MILLER, F. R. S. E., F. R. C. S. E., author of a Treatise on the Practice of Surgery; Surgeon in Ordinary to the Queen for Scotland; Surgeon in Ordinary to His Royal Highness Prince Albert for Scotland; Professor of Surgery in the University of Edinburgh; Consulting Surgeon to the Royal Infirmary, etc., etc., etc. Fourth American, from the Third and Revised English Edition. Illustrated by two hundred and forty engravings on wood. Philadelphia: Blanchard & Lea. (For sale by Riley & Co.)

Dr. Sargeant was editor of the last edition (American) of this work, but owing to his absence in Europe, the present edition has

been passed through the press without any editorial supervision; the aim of the publishers being to render the work an exact transcript of the author's last *revised* edition.

The work before us is familiar to the American reader, and needs no recommendation. In it the author has exhibibited a condensed view of the principles of Surgery—the sum and substance of his systematic lectures on the subject, as well as a text book, it serves as a very valuable work of reference.

The Causes and Curative Treatment of Sterility, with a preliminary statement of the Physiology of Generation; with colored lithographs and numerous wood-cut illustrations. By AUGUSTUS K. GARDNER, A. M., M. D., Permanent Member of the American Medical Association; Fellow of the New York Academy of Medicine; Member of the Massachusetts Medical Society; Member of the New York Pathological Society; Physician for Diseases of Women and Children in the New York Northern Dispensary, etc., etc., etc. New York: Dewitt & Davenport, Publishers, 160 and 162 Nassau street. pp. 166.

For a number of years the attention of the author has been directed to the diseases peculiar to women, to parturition, etc. And from the treatment of many thousand cases in hospital and in private practice, views and opinions have been formed which it is the object of the present treatise to set forth.

The work is commenced with an introduction which occupies two pages, in which is considered the harmony of nature in its anatomical formations; identity of the reproductive functions; the greatness of the Divine Creator manifested in His works; what human energy has discovered; how animal life is perpetuated; reasons for entering on the physiology of generation, etc.

Chapter I. discusses the *Physiology of Generation* Chap. II. the *Pathology of Sterility*. Chap. III. the *Therapeutics of Sterility*.

Doubts may very reasonably be entertained in regard to the propriety of getting up a separate *treatise* embracing the above subjects. On an examination of the contents, we find the *body* to be a compilation from American, English, French and German writers. Pretty much all may be found in late works on Physiology and Pathology. To such, however, the author adds his own researches, opinions, etc.; and from the fact that the matter is well arranged,

and the style of the author very good, a very readable book is produced.

While, therefore, the profession is somewhat accommodated by having a monagraph on the subjects embraced by the author, to which reference can at once be made, there is thrown necessarily to some extent, before the people, a work with which it is not only unnecessary that they should be acquainted, but one that in the hands of a certain class may be productive of much mischief. The morbid taste exhibited by many not in the profession to pry into the *Physiology of Generation*, in our judgment, should not be encouraged. It can lead to no good. The same may be said of the *Pathology of Sterility*. Some there are who wish to know how to have children; others who wish to know how to avoid having them. The latter class, as well as the former, will buy this book, supposing that everything known relating to pregnancy—how it takes place, as well as how it may be prevented—will be fully detailed; and in this they will not be disappointed. We predict, therefore, for this book a larger popular than professional demand.

On some Diseases of Women Admitting of Surgical Treatment. By Isaac Baker Brown, F. R. C. S., Surgeon Accoucher to St. Mary's Hospital, &c., &c. Philadelphia: Blanchard & Lea. 1856. pp. 276. (Riley & Co., Columbus.)

Few persons engaged in varied and extensive practice have failed to meet with the pitiable objects of the diseases and accidents of which the book before us professes to treat. They are by no means of minor consequence. On the contrary, many, if not most are of fearful importance. Nor are they of so infrequent occurrence as might be supposed, at the first glance, for, from the natural reserve and modesty of women, and the despair of gaining relief, they are often kept secret by the desponding sufferers. In many cases "the patient is placed *hors de societie*. Obliged to confine herself to her own room, she finds herself an object of disgust to her attendants and even to her dearest friends. She lives the life of a recluse, without the comforts of it or even the consolation of its being even voluntary. It is scarcely possible to conceive an object more loudly calling for our pity and strenuous exertions to mitigate, if not remove the evils of her melancholy condition." This picture, however highly drawn it may appear, is in no respect over-colored, if extended to

very many, and in a somewhat less degree to all those suffering from the diseases and accidents treated of by Mr. Brown. Yet, heart-rending as their consequences are, systematic works on Surgery or Medicine have hitherto afforded but little aid to the embarrassed practitioner who may have such cases to treat, and every one is liable to be called upon to do so at any moment. A work embracing the treatment of these serious diseases, and the methods by which such accidents hitherto considered as almost hopeless in their very nature can be remedied, is certainly a desideratum in our literature and will doubtless be welcomed as cordially as its great merits demand. The work before us is plainly written, by a man who without pedantry brings much acquaintance with the previous literature of the subject to his task, and better still, who very clearly apprehends in his own mind the points he wishes to enforce upon the attention of others. To a great extent more than is usual in these days of compilation, it is original and founded upon the author's own large experience.

We have said sufficient to indicate our general opinion of the work, and shall now briefly introduce to our readers the main features of the book, with such accompanying remarks as we may deem requisite.

Mr. Brown states the subjects of his remarks under two principal divisions, viz:

1*st.* *Diseases or accidents which result directly or indirectly from parturition.*

2*d.* *Diseases or accidents of the female organs occurring independently of pregnancy.*

Chapter I. is devoted to Laceration or Rupture of the Perineum, an accident which, in its lesser degrees, is doubtless more frequent than most persons would be willing to admit, and of little practical importance, from the readiness with which it heals, but in its more aggravated form one of the most distressing accidents of labor, the more lamentable, because until quite recently supposed to present insurmountable obstacles to its successful treatment. Parè, the father of modern surgery, recommended sutures for this accident, and in the first authentic case recorded, the uninterrupted suture was used with success by Guillemau, one of that great man's pupils. It is needless to say that sutures alone are insufficient, in a vast majority of cases, to resist the traction of muscles, often very great. The incisions of Dieffenbach and Langenbeck were devised with this view

and met with more or less success. Passing over the descriptions of the operations proposed by previous surgeons, for which, though exceedingly interesting, we have not space, we proceed to the consideration of the operations of our author. When the rent extends only to an inch or less, no special operative treatment is required. Quiet and extreme cleanliness are usually sufficient. In the more severe forms of the accident, when the perineum and sphincter ani are both involved in the laceration, Mr. Brown's mode of operating is thus described:

"The patient should be placed in the position for lithotomy, the knees well bent back upon the abdomen, and all hair closely shaved off about the parts. The sides of the fissure should be held by an assistant, so as to insure a sufficient tension for the operator; a clean incision is now to be made about an inch external to the edges of and equal to the fissure in length, and sufficiently deep to reflect inwards the mucous membrane, and so to lay bare the surface as far as another incision on the inner margin. The denudation of the opposite side of the fissure is then to be practised in a similar manner, and the mucous membrane from any intermediate portion of the recto-vaginal septum is to be also pared away.

"This denudation must be perfect, for the slightest remnant of mucous membrane will most certainly establish a fistulous opening when the rest of the surfaces have united.

"*Division of the Sphincter.*—So soon as this stage of the operation is completed, the sphincter ani is to be divided on both sides, about a quarter of an inch in front of its attachment to the os coccygis, by an incision carried outwards and backwards. The incision should be made by a blunt-pointed straight bistoury, which, having been introduced within the margin of the anus, guided by the forefinger of the left hand, is quickly and firmly carried through the fibres of the muscle and through the skin and subcutaneous areolar tissue to the extent of an inch, or even two, external to the anal orifice.

"The degree of relaxation to be sought must be regulated by the extent and character of the laceration; it being remembered that the freer the incision the greater will be the amount of relaxation obtained. In every case, muscular traction must be destroyed, for so long as it exists it will oppose the union of the parts.

"*Insertion of the Quill Sutures.*—The sphincter having been divided in the manner just stated, the thighs are to be approximated, and then the quill sutures introduced. The left denuded surface and tissues external to it being firmly grasped between the forefinger and thumb of the left hand, a strong needle carrying a double thread is plunged, with the right hand, through the skin and subjacent tissue an inch external to the pared surface, and thrust downwards and inwards beneath it until its point reappears on the edge of that surface; it is then introduced at the corresponding margin of the denuded space of the opposite side, and made to traverse beneath it in a direction upwards and onwards until it escapes at a point equi-

distant from the external margin with that at which it entered on the left side. Each of the three sutures is to be introduced in the same way, the one nearest the rectum first.

"The sutures are double, to allow them to enclose the quills, or (as actually used) the pieces of elastic catheter or bougie, around which they loop on one side, and are tied over, by their free ends, on the other. For sutures I prefer stout twine, well waxed, to silk, as I believe it to be less irritating and productive of less suppuration.

"*Insertion of Interrupted Sutures.*—Having firmly secured the three sutures upon the bougies, the sides of the fissure become approximated—the denuded surfaces in apposition. To bring together the outer margins, along the line of the skin, it is advisable to pass three or four interrupted sutures. If this be carefully done, union of the skin will speedily take place, and that of the deeper parts be materially facilitated. As an accessory or superficial suture, the twisted form is used on the Continent; but I think the interrupted more simple, and have found it to answer completely.

"I should recommend, previously to bringing the operation to a close, that the forefinger of the right hand should be passed into the vagina and that of the left into the rectum, so as to ascertain that apposition is complete throughout.

"Lastly, the parts having been well cleansed by sponging with cold water, a piece of lint steeped in cold water is applied, and over it a napkin kept *in situ* by a T bandage.

"*Operation in Recent Cases.*—The operation has been detailed with reference to cases of some standing, where cicatrization has occurred; with respect to recent cases of the accident, the only variation of the plan is in the omission of the otherwise necessary denudation of the margins of the fissure."—pp. 39—42.

The after treatment consists of absolute rest—opiates, and in the main, generous diet. The catheter must be used every four or five hours for several days after the operation. The sutures are to be removed on the fifth or sixth day. A longer continuance of them our author considers as injurious. The details of twenty cases are given in proof of the success of this treatment, of which we have made the following analysis. Eighteen were operated upon by Mr. Brown, two by a Mr. Obre. Of the twenty cases, sixteen occurred in primaparæ, one in the second labor, one in the third, one in the eighth labor, and in one this point is not stated. Five of the patients had borne children between the dates of accident and operation, viz: two had given birth to five children, two to four, and two to one child, respectively; one patient was in the third month of gestation when operated upon. In fourteen cases a considerable interval had intervened between the accident and operation, extending in one case to seven weeks, in one to eight months, and in eleven from

eighteen months to seventeen years. In all these the laceration of the perineum was complete, involving all or part of the sphincter ani, and in five the recto-vaginal septum likewise. One case was complicated with procedentia uteri. Of these, one patient, in whom the accident had existed for sixteen years, died; the remaining number entirely recovered. Two of them were subsequently delivered with a consequent laceration of less than an inch. In one case of five months duration the laceration was incomplete. It was complicated with *prolapsus uteri.* Recovery took place. The remaining cases were operated upon directly after the accident. Five had complete, one incomplete laceration of the perineum. In four the sphincter ani was more or less involved, and in two there also was fissure of the recto-vaginal septum. These all resulted successfully without denuding the mucous surfaces. In two cases subsequent labors occurred without any laceration. We therefore conclude with our author, that he has established the three following propositions: "1st. That the worst forms of lacerated perineum, of however long standing, may be cured by the operation. 2d. That immediately on the occurrence of the accident, it should be resorted to. 3d. That subsequent parturition is possible without injury to the restored perineum."

Chapter II. is devoted to the consideration of "Prolapse of the Vagina," forming when the anterior wall yields *Cystocele;* when the posterior, *Rectocele.* In the slighter forms of these diseases, our author relies on astringent injections and frequent catheterism. The more aggravated forms of this disease may demand surgical interference. Numerous plans have been resorted to for this purpose by Jobert and others. We extract the mode preferred by our author, from his account of a case of cystocele of nine years standing:

"The patient having been prepared by emptying the bowels, was placed under the influence of chloroform, and then put in the position for lithotomy, each leg being held by an assistant, a third assistant holding up the tumor with Jobert's bent speculum, and pressing it under the pubes in its natural position. A piece of mucous membrane, about an inch and a quarter long, and three-quarters of an inch broad, was dissected off longitudinally, just within the lips of the vagina. The upper edge of the denuded part being on a level with the meatus urinarius, the edges were drawn together by three interrupted sutures, this being repeated on the other side of the vagina. The next stage of the operation consisted in dissecting off the mucous membrane laterally and posteriorly in the shape of a horseshoe, the upper edge of the shoe commencing half an inch

below the lateral points of denudation, taking care to remove all the mucous membrane up to the edge of the vagina where the skin joins it. Two deep sutures of twine were then introduced about an inch from the margin of the left side of the vagina, and brought out at the inner edge of the denuded surface of the same side, and again introduced at the inner edge of the pared surface of the right side, and brought out an inch from its margin, thus bringing the two vascular surfaces together, which were then kept so by means of quills, as in the operation for ruptured perineum. The edges of the new perineum were lastly united by interrupted sutures, and the patient placed in bed on a water-cushion. Two grains of opium were given directly, and one grain every six hours; simple water-dressing applied to the parts; beef-tea and wine for diet. A bent metallic catheter, to which was attached an elastic bag to catch the urine, was introduced into the bladder: by this means the bladder was constantly kept empty."—p. 78–79.

Reports of eight operations are given, *four* for *Cystocele, three* for *Rectocele,* and *one* in which both existed as well as *ruptured perineum.* In *two,* rectocele was also complicated with ruptured perineum. Success attended all the operations.

Chapter III. embraces *Procidentia* and *Prolapsus Uteri,* which though judicious in its recommendations, contains nothing very new upon the subject, and we therefore proceed to notice Chapter IV. upon *Vesico-Vaginal Fistula and its Treatment.* Upon no point does American surgery occupy so proud a position as with reference to the treatment of this most distressing accident. With the exception of a few contributions by Jobert, Wutzer and Gerder, and one or two others of less note, nothing has been done by the profession of the old world for the amelioration of this calamity. It has been quietly consigned to the dark list of "*opprobria chirurgicorum,*" to interfere with which was to reap no honor, if it were even possible to escape disgrace. The persevering efforts of American surgeons have now removed it from this sad position by their ingenious inventions, so that the ratio of cure of this hitherto hopeless accident is now more than equal to that of other surgical operations of much magnitude. We have already, in a former number of this Journal, referred to the success of Dr. Hayward—a success which though partial, was immeasurably greater than any of his predecessors. The efforts of Prof. Mettauer, of Virginia, are also well known, as also those of Prof. Pancoast. But it is especially to Dr. J. Marion Sims, of New York, by the invention and application of the "Clamp Suture," with which he has had unprecedented success, that the profeesion is indebted, for the introduction of an ope-

ration which is now received as a standard one not only at home but also abroad, where its great merits are frankly acknowledged by such authorities as Erichsen, Ferguson, Druitt, and our author in his present work. Mr. Brown describes this operation very minutely and gives the details of four cases thus treated by him. In all of them it had to be repeated; in one case as often as six times. One patient died after the second operation. One entirely recovered. In the others, so much relief was obtained that the urine passed wholly by the urethra, except a little dribbling from a minute fistulous opening. It is said that Dr. Sims has cured thirty patients without one failure. If so, he has certainly been more successful than the generality of surgeons who have followed his method for a like success has not attended their efforts. No comparison can be made between the results of *operations*, because the number of Dr. Sims' *cases* alone, not his *operations*, have been stated, whereas, it is well known that, (as in Mr. Brown's cases,) many successive operations may be required in one case, and this probably was true with Dr. Sims. It is computed that about one-half of *all operations performed in this method have failed.* The proportion of cases *ultimately* cured, may of course differ, yet we cannot avoid thinking that most surgeons will concur in Mr. Brown's very frank remarks:

"The preceding cases will illustrate the various points of difficulty which are met with in the treatment of this distressing lesion, and although they do not exhibit a great amount of success, they may fairly be looked upon as valuable illustrations of our present knowledge and practice; and I still look forward to a greater amount of success, by steady observation and persevering efforts, which the late improvements in surgical science certainly justify, especially as the difficulties are rather mechanical than pathological. It cannot be concealed, however, that it requires no ordinary amount of perseverance and determination to bear up under the vexatious disappointments which are constantly occurring in the hands of the most painstaking operators."—p. 114.

The objections to the "clamp suture" are founded upon the fact, that occasionally where there is much traction on the parts, the wires will ulcerate out. The sutures must also act in one direction exactly alike, with the same amount of pressure, or injury is done. In Dr. Sims' hands this does not appear to be the case, but with others it has often happened, without any imputation upon their care or skill. To remedy these defects, Dr. Bozeman has, in the Louisville Review of May, called attention to his modification of the operation by what he terms "the button suture." He has operated by this method upon four cases, in three of which, two fistula of differ

ent sizes existed; thus in fact making seven fistula in the four cases, in all of which he succeeded in effecting a recovery. Dr. Sims' operation had previously failed. As this article appeared since the publication of Mr. Brown's book, we will, at the risk of tediousness, advert to the peculiarities of the button suture. Silver wire is used for the sutures. These are carried through the tissues half an inch from the edges on both sides, and the edges of the fistula previously much beveled, are brought into approximation by bringing the wire together as in tying an ordinary suture. The ends are now passed through holes in a thin silver plate or button, the under surface of which is slightly concave, with turned up edges. The concave side is to be next to the vaginal wall, and the plate is now pressed down into close contact with the closed fistula. The wires are then secured by perforated shot, and the ends cut off. In this operation the sutures need not be parallel, and the pressure is not upon the approximated edges of the wound, but some distance from it. We entertain the hope that this operation will be found of great service, where from double fistula or other causes, the "clamp suture" is inapplicable. However this may be, it cannot detract from the great merit of Dr. Sims, and will certainly add another laurel to those already gained by American surgery, in combating the disastrous results of this most afflictive accident.

Chapter VI. on *Lacerated Vagina*, we must pass over with the single remark, that the directions for operating, and subsequent treatment, are worthy of especial notice, could our space permit.

We have thus dwelt at some length (perhaps some may think, with prolixity) upon the treatment of accidents which occur from parturition, because important as they are from their distressing nature, and so liable to come under the notice of every practitioner, we are not aware of any other book wherein they are so satisfactorily treated of, as in the work before us.

The remainder of the work is occupied with subjects of which the literature is much more ample. We shall therefore proceed more rapidly in our notice of the diseases or accidents occurring, independently of parturition, which require surgical treatment. As in the former chapters, our author's own experience is put into requisition largely, and his notices of what others have contributed, are exceedingly well digested. Thus our readers will find an excellent resumé of what is known of *Polypus Uteri, Stone in the female Bladder, Encysted Tumor of the Labia and Diseases of Rectum result-*

ing from certain conditions of the Uterus. In this connection, we may express our regret that our author has omitted *Abscesses of the Labia* from the list of his subjects. They are not unfrequently met with, and are often of great trouble to patient and physician.

In chapter IX. "*Vascular Tumors in the meatus urinarius*" are clearly and fully described. These excrescences are very trifling in magnitude, yet there are few diseases which occasion such extreme pain and discomfort, and for the cure of which the patient is so grateful. They render her a burden to herself, and from the usually great pruritus attending their presence, they debar her from social intercourse. Fortunately this disease is readily amenable to surgical art. Such a tumor may be suspected when the patient complains of excruciating pain in micturition or in coitu, or from the slightest pressure on the part; and this extreme sensibility does not extend to the vagina or vulva, but is confined to the meatus urinarius. The suspicion can, of course, only be confirmed by an examination which at once reveals the tumor or tumors, usually very minute and of a bright scarlet color, situated on or within the meatus, loosely attached to the mucous membrane, and easily caused to bleed by undue handling. Mr. Brown recommends excision of the tumor, together with a small portion of the mucous membrane from which it grows, afterwards applying nitric acid to the wound with a pointed stick. He also alludes to the actual cautery, as used by Mr. Jordon with success. In a few cases that have come under our own observation, the application of potassa fusa has speedily effected a cure.

For *Imperforate Hymen*, which is treated of in chapter X., our author, instead of following the recommendations of previous writers in favor of a crucial or stellate incision, which simple operation has frequently been followed by peritonitis, practices the entire removal of the hymen by a circular incision at the point of its juncture with the labia. To prevent any subsequent constriction of the vagina from the cicatrix, he directs plugging the orifice daily, after the first three days, with lint soaked in oil.

Chapter XIII., on *Ovarian dropsy or encysted dropsy of the ovary*, contains an elaborate account of the pathology, semeiology and treatment of that disease. We know no other book where so much practical matter has been so well condensed upon this subject. The question of the propriety of ovariotomy is discussed fairly—its advantages in certain cases pointed out without ignoring the attendant risks and objections. There is none of that acrimony of feeling dis-

played, which this subject, singularly enough, seems to excite in the minds of some writers, who speak as fiercely about it as if the removal of an ovarian tumor were a matter of polemical or personal warfare. He devotes some consideration to Dr. Lee's tables, which, meagre as they are, seem to be a perfect bugbear standing in the way to scare every man who approaches, except him who walks boldly up to it and examines more closely how the repulsive effect of the first glance was produced. On this point we are disposed to offer a slight demurrer. Although Mr. Brown usually quotes liberally from American authors, we regret that he did not allude to Dr. Atlee's fuller tables, or collate the numerous additional cases reported the last few years, both in Europe and in our own journals, when we think the necessity for paying such attention to Dr. Lee's deductions would have been less evident to our author's mind. Whatever may be the results of a statistical calculation, there will always remain circumstances which can never enter into its formation, yet which will always materially influence our decision in individual cases of these or any other diseases. The propriety of an operation will, after all, be determined by the particular symptoms and condition of that particular patient. The treatment by tapping and pressure—by excision of part of the cyst—by injection of iodine—by the formation of an artificial oviduct, and by extirpation of the tumor, are very fully described, discussed, and illustrated by cases. We gladly refer our readers to this part of the book, every page of which they will find replete with valuable and instructive matter.

Our attempt to analyze and consider this book, has been a source of much pleasure to us. We feel confident that its perusal will equally afford pleasure and profit to all who may consult its pages, either to increase their general knowledge of the diseases and accidents it treats of, or to assist them in the treatment of any unfortunate patient who may seek their aid, when suffering from any similar affliction.

R. G.

History of the Ligature applied to the Brachio-cephalic Artery with Statistics of the Operation. By Paul F. Eve, M. D. Nashville: Cameron & Fall. pp. 24.

Two cases of supposed aneurism of the *arteria innominata* or *brachio-cephalic* having been brought recently under the notice of Prof. Eve, naturally led him to review the statistics of operative

interference in this rare disease. The result of his investigations he embodied in a paper read before the State Medical Society of Tennessee, which now comes to us in pamphlet form. The author appears to have collected together more cases in which the operation had been attempted than any previous authority, but without modifying the conclusion arrived at by a majority of them, which was forcibly stated by Velpeau, in a discussion on the subject, in the Academy of Medicine, when he characterized the proceeding as being "a murderous operation, an operation which should never be attempted again, and which cannot be pardoned hereafter." The only variation in the results in the cases detailed by Dr. Eve, was in the interval between the operation and death. The first ligature of the innominata was by Dr. Mott, in 1818. In his case, death took place in 26 days from repeated hemorrhage. The longest interval was in the case of *Graefe*, when the patient lived 65 days, and then died from hemorrhage. Of the 16 cases mentioned in this monograph, the ligature was tied round the innominata in only 10. In one, it passed through two holes in the coats of the vessel. In two, the carotid and subclavian were ligated just beyond the bifurcation, and in the remaining three, the artery was cut down upon but no ligature applied. The only case of recovery occurred in one of these last mentioned. The artery was cut down upon, but was so diseased that the operator (Porter, of Dublin,) failed to apply a ligature. The aneurismal tumor, neverthless, disappeared, and the patient entirely recovered. "So that," adds Prof. Eve, "the only successful attempt upon the brachio-cephalic artery, to cure aneurism by ligature, was where an Irishman did not tie the vessel at all!"

Prof. Eve concludes his interesting monograph by the following pertinent question:

"In conclusion, after this exposition, let me ask who will again venture to tie the *brachio-cephalic artery?*"

R. G.

PART FOURTH.

EDITORIAL AND MISCELLANY.

NINTH VOLUME.—The present number commences the Ninth Volume of the Journal, and it might not be inappropriate to say something in regard to the *past*—something also of the future.

Journals are instruments, not agents, and as such are instituted to purify and enlighten—to diffuse those precepts and maxims that make up the platform upon which the physicians of every country can meet and deliberate together, and to chronicle, for ourselves and others, the facts, phenomena and events developed by the observers of our day and generation. While such embrace the general scope of Journals, the details are often found to be complicated with collaterals. Many things often spring up in the path of a journalist concerning which there may be diversity of opinion, often leading to controversy, and often the source of more feeling than reason. At the commencement of our enterprise, we avoided as much as possible participation in any controversy, not involving directly the interest and welfare of the profession, and this having become the rule, we see no reason for not adhering to it in future.

The Journal, since our connection with it, has been increased in its circulation; still, it is very much below, in this respect, what it ought to be, considering the number of physicians west of the Alleghany Mountains, or even the number within the limits of our State. If each one of our patrons would interest himself enough to obtain an additional subscriber or two, it would give us twice the area for usefulness, and we pledge ourselves to an effort for its improvement. The calling is one in which we voluntarily embarked, and while we have no wish to shrink from any labor connected with its success, we may be permitted to suggest to friends that they can often help us where we cannot help ourselves.

To *Correspondents*, one and all, we return our thanks. What has been published from this source, has in general been well received by the readers, and considerable of it other journalists have transferred to their pages. We have several times suggested to our young

readers that they should make a daily record of what passes under their notice. A course of this kind would soon lead to uncommon precision in diagnosis, and accuracy in observing the effects of remedies, and at last to the *habit* of writing. May we not expect more contributions from this source the coming year?

Into the future we look with increased confidence. The past quarter of a century has been uncommonly prolific in what it has brought forth in the way of truth. From a similar period in the future we may expect much more; indeed, as we progress, the ratio of truth to error, sophistry, theory, etc., may reasonably be expected to increase. Nor does our advance in science constitute our only achievement. Medical men seem now to fully comprehend that by their associated efforts, by their fraternal action, their standing and usefulness, their reputation and their influence may be most successfully promoted.

With the various forms and phases of quackery we expect, as formerly, to have but little to do. Observation has had no other effect than to strengthen an early conviction, that the most successful plan of getting along with such troubles, is to turn them over to the rebuke that they sooner or later extort from the community. As far as we can learn, the irregular systems, by their own weight, are gravitating towards general insignificance. Several of them have already passed below the horizon to make their appearance no more; others are on the wane, and will have the same destination. The *patent medicine system*, carried on with so much industry, and involving such an immense investment of moral turpitude, has also had its day, and saturated the most of the credulity of which it is capable. Venders in this city say that their sales now are only about one-tenth of what they were five years ago, and the trade still on the decline.

There is a matter having a connection with quackery and patent medicines to which we expect to direct attention at some future time in a somewhat formal manner. We allude to the prostitution of the *Public Press*. The secular papers, political, and to some extent, religious, are the instruments, and pretty much the only instruments, employed to bring about the sale of patent medicines, and call attention to the traveling mountebanks that go about swindling the people. We have always understood that the press professed to be the guardian of order, right and truth. All the time it is asserted that without it we would revert to an uncivilized, barbarous state.

Now, we are not disposed to call in question the theories connected with the utility of the press; its *practice*, in the instance we have before us, is what concerns us. An ignoramus comes to our city, for example, calling himself an Eye Doctor. He knows that he cannot get patronage, as honest men do, upon his merits, but at once he goes to our newspapers, hands them over a fee, with certificates of cures performed in other and distant places, of the truth of which the editors know nothing, and asks for these certificates a place in a conspicuous part of the paper, and also an editorial *puff*. The announcement is made as per agreement, and for a time the doctor has a *profitable run*; and after the people are fleeced of their money, often of their health, the paroxysm of knavery is closed up, to make its appearance, however, at some other point.

The advertisement of patent medicines is carried on after a similar fashion. The editors of newspapers have furnished to their hand accounts of the uncommon efficacy of a certain nostrum for this, that, or the other disease, or perhaps for a variety of diseases. With these accounts comes a lot of certificates from squires, clergymen, lawyers, poets, etc. The direction is to publish all, and occasionally add something in the way of endorsement, which is usually done.

A course so much at war with truth, honesty and all the impulses which should govern gentlemen, it might, a priori, be supposed would awaken in the minds of those concerned in it, some apprehensions in regard to its propriety. Such has been the case. Some of these editors, whose consciences are still *viable*, at an Editorial Convention lately held in this city, brought the matter forward, as we have understood, and some resolutions were proposed condemning the practice of advertising patent medicines as immoral, and an imposition upon their readers. The resolutions, however, were voted down on the ground that this kind of business is a great source of profit to all newspapers; and that without it many could not be supported at all, but would have to be discontinued. Has it come to this, that the press, in order to sustain itself, has to be leagued with systems of fraud? A deplorable condition, truly. The matter should be looked into, and inasmuch as the evil consequences fall promiscuously on all classes, no one should have any misgivings in exposing it. The course of Medical Journals, in the premises, certainly should not be misunderstood.

To Subscribers.—With this number we send *bills* to our subscribers for *arrearages*, and also, as our terms are "*In Advance*," we send for the ensuing year. From all who know themselves indebted we expect attention to our request, for no journal can be carried on without *paying* subscribers. From our list we have, since our last issue, expunged the names of a number who have received the Journal for years, but have paid nothing. Their injustice will hurt them more than anybody else. The present number we send to some new names, with a request that if not desired it be returned. Where it is not returned we continue to send, and expect a remittance.

Visit to a Gipsy Camp.—Passing through one of our streets a few days since in a buggy, we noticed upon the sidewalk a man and two women, who differed so essentially in appearance from our people, that we were at once impressed that they were members of some trans-atlantic race. On inquiry, we found them to be *Gipsies*, who had come to the city, as they said, to tell fortunes and do a little trading.

We were so struck with their appearanee, that we visited, some four miles from the city, their camp, to make further observation. The company, or tribe, numbered about twenty, of different ages, from a baby four weeks old to an old woman that we supposed about sixty. There were, indeed, in the company, old, young, middle aged—a very fine variety considering the limited number. They all professed to be ignorant of their ages.

The camp was indicated in the distance by the presence, in a grove, of four or five covered wagons, and a small drove of horses running at large. The wagons were arranged in the form rather of of a circle, inside of which were their tents for sleeping, and a log fire for cooking. Indiscriminately strewn around the fire, were cooking utensils, very few, and of the simplest character; bed clothes, children, dogs and chickens. At one side of the fire, and but a few feet from it, was a lot of feathers that had been picked from poultry; these, at every breeze of wind, circulated freely through the camp, attaching themselves to whatever happened in the way. The clothing of the company, of both young and old, with but very few exceptions, consisted of old articles that had been begged, most likely, from the inhabitants among whom they had ately traveled. Everything about the camp, that we observed, had

the appearance of filth, carelessness, and an effort to live with the least possible investment of labor. On inquiry, it appeared that the company, about a year since, had immigrated from England. We put the question to them to know what avocation they pursued in this country to obtain a living. A female answered that her husband followed horse trading, making baskets and mending tin-ware. The truth is, however, that they get their support by begging, "telling fortunes," swindling and thieving. Only a year since an individual in an adjoining county was swindled by a Gipsy woman out of some four thousand dollars in money. They are very cautious with property when once obtained, One of the women remarked: "We have *under us*, sir, a good deal of property, and we have to be very careful that it is not stolen from us." Nomadic in habits, they wander from place to place, and seem to have no definite time to tarry in a neighborhood, but stay, as they remarked, "as long as trade seems good." The eldest female among them, stated that all the members of the company were related to each other.

The personal appearance of these people contrasted, as before remarked, very strongly with what we are in the habit of seeing. They differed but little in height from Americans, though they seemed to be of lighter frame; the majority of them were rather symmetrical in their features and general form. Their movements were quick, spirited, agile, denoting perfect use of physical powers. The hair of all, except one, was black, fine, abundant, and rather straight. Of this one, who was of lighter complexion than the rest, the hair was correspondingly light.

The color of the skin differed from that of our mulattoes, of whom several happened, out of curiosity, to be present at our visit; it differed also from the aboriginals of our country, and also from that of the few Chinese that we have seen. To that of the American Indians, it approximated most closely, being deeper and of a more copper hue. Pritchard, in his work, "*Natural History of Man*," gives a colored portrait of Ram Ruttun, a Hindoo, the color of which agrees almost exactly with the Gipsies. The color, we should think too deep to admit much of the *blush*.

Although these people seem of the *yellow* order, their heads had no resemblance to the *prognathous* form of the Negro, or the *pyramidal* of the Mongolian and American Indian. The heads of several of the adults, both men and women, were very fair specimens of the *oval* or *eliptical form*, the form thought by many physiologists and ethnologists to be peculiar to the Caucasian race. The face

was small, oval, perpendicular; mouths small; lips moderate; nose narrow and rather aquiline; iris dark; cheek bones and zygomatic arch not out of proportion.

This people, were it not for the color of the skin, ought to pass, it seems to us, for a variety of the Caucasian. And of the three divisions of the Caucasian race, the Germanic, Sclavonic and Celtic, the Gipsies most nearly resemble certain branches of the last.

Of the origin of the Gipsies, nothing is very certainly known. The name Gipsy (from Egypt) was given to them by the English statutes, perhaps on the supposition that they came originally from the delta of the Nile. In different countries they seem to have received different names. They call themselves, however, *Pharoan* or *Sinte*, the Hindoo name of the inhabitants of Hindostan. There seems to be but little doubt among ethnographers of their Asiatic origin. Their personal appearance, language and nomadic habits, lend plausibility to this view. It seems equally probable that they are a variety of the Hindoo stock. Nations said to be similar to them are found at the mouth of the Indus, and also on the banks of the Ganges.

In every locality that they have occupied, they seem to have preserved their national peculiarities. Various attempts have been made to civilize them. Being at one time numerous in Austria, Maria Theresa formed the plan of converting them into citizens. She issued an ordinance that Gipsies should dwell in settled habitations, practice some trade, dress their children and send them to school. This measure, as well as similar ones by other governments, have had no permanent effect. Laws have been passed also for their expulsion from different countries. But even persecutions were of little avail towards rooting them out. Marriages are formed in the rudest manner, one of their own number officiating as priest. The young Gipsy takes a wife without caring whether she is his sister or a stranger; of one thing, however, he must be satisfied, she must be of the Gipsy blood. A want of moral principle seems to have characterized the race since ever it has been known. Cheating, thieving and robbing, are the means upon which reliance is placed to live. Whether this ethnological feature is the result of an innate absence of the sense of right and wrong, or an acquired habit, is a nut upon which moralists may exercise their faculties in trying to crack. Exhibited with the utmost integrity for a number of centuries, and having resisted with perfect success the most wise and ingenious efforts at reformation, such traits seem to the common ob-

server, to be a part and parcel of their nature; and it seems that each individual is a kind of an automaton through which they are manifested. This, however, may yet prove to be a superficial view of the matter. Still the way in which a nation has always demonstrated itself, ought to teach something in regard to its real character.

Somebody has said that there is no nation without its religion. This may apply to the Gipsies, but it is a fact that they have no religion that is peculiar to them. Among the Turks they are said to be Mahometans; in Spain they have followed the forms of the Christian religion, without having shared in its spirit. Instances are given of their having had their children repeatedly baptized in different places, that they might get the money which it is customary in some countries to give poor parents when their children are made the subjects of this ordinance.

Like the Jews, the Gipsies have made up their minds to live without work. On it, as pursued by the plodding, laborious Saxon or Celt, they look with indifference, contempt; rather than labor, they would starve—so says one who has observed them much. And without education in a knowledge of letters or figures, they, by their wits, manage to pass through life, and pick from others what answers them to live.

We inquired of one of the more intelligent females, what they were in the habit of doing for themselves when sick. She answered, "we take medicine." One of their children had *Thrush*, and for this, we were told, they used borax. During the past year, the most of them had intermittent fever, for which they used quinine.

The number of this race is not known. A few years since it was supposed that there were 700,000 in Europe alone. They are not numerous in our country, though most likely on the increase. Whether the race is increasing or diminishing throughout the world, there is no means of ascertaining. If intermarriage has a tendency to deteriorate and shorten life, this race ought to have become extinct long since, for as previously remarked, the practice is, and always has been, to marry without regard to relationship. Polygamy, from what we could learn, obtains to but a limited extent, perhaps from the circumstance that the men find one wife as many as they can conveniently support.

Starling Medical College.—It will be seen by the advertisement in this number of the Journal, that the ensuing session of this

institution commences October 15th, and continues for *five* months. What experience the faculty have had in the extension of the lecture term has had no other effect than to strengthen conviction, not only in its utility, but in its practicability. It gives both teacher and pupil opportunity to do more than they, under the old system, could do; the former has, by this arrangement, some little time to amplify, the latter some to digest what he hears.

As is announced in the advertisement and catalogues, an arrangement has been perfected by which the students of Starling College have access to the Penitentiary Hospital. This institution is prolific in the medical and surgical material it affords. While there is great variety in the diseases and forms of diseases in its capacious ward, it presents a very fine array of those of a malarious character, those which the young practitioner of the West will be most frequently called upon to treat. Professors Hamilton and Smith will lecture regularly at the hospital during the term.

Besides the source to which we have alluded for clinical instruction, the city and the Benevolent institutions located here, furnish still more, so as indeed to make this point, in this respect, actually attractive.

Those composing the faculty are determined that it shall be second to none in the country in the effort to impart a thorough medical education. Having now at their service all the facilities for teaching, they can say to those about to embark in the study, that it may be well for them if their lots happen to be cast among us.

To the Members of the O. S. Medical Society.—The undersigned, appointed a committee on publication, at the last session of the Society, upon consultation and in view of the facts that but two papers have been furnished within the time required for publication, and that the minutes of the last meeting have been fully reported in the medical periodicals of this city, and that the Society will hold an adjourned session in January next, deem it inexpedient to publish the transactions in the usual form until after the January session.

S. B. DAVIS, J. B. POTTER,
GEO. W. MARIS, G. P. LANDON.

Columbus, O., June 21, 1856.

[The Western Lancet and Observer will please copy. (Request of Committee.)

☞ The Index for Volume VIII. will be found in the present number of the Journal.

Odeon Bookstore.

S. H. BURR & CO.,

No. 1, Odeon Building, opposite the State House,

COLUMBUS, OHIO.

GENERAL DEALERS IN

Medical, Miscellaneous, Theological, Sunday School, Classical, and School Books, Blank Books, and Stationery, Writing Paper, Wall and Window Paper, Window Shades and Pictures, Fancy Goods, &c., &c.

The attention of Physicians and Students is particularly invited to their extensive stock of "MEDICAL BOOKS," consisting in part of the following valuable and well known works:

Wood's Practice; Wood's and Bache's U. States Dispensatory, new edition; Pereira's Materia Medica, new edition; Maclise's Surgical Anatomy; Watson's Practice; Druitt's, Miller's, Fergusson's, and Erichsen's Surgical Works; Beach's Ramsbotham's Meigs' and Churchill's Midwifery; Harris' Dental Works; Carpenter's Principles of Human Physiology; Dunglison's Dictionary, &c.; Horner's Special Anatomy and Histology; Wilson's Anatomy; Condie on Children; Lawrence on the Eye, &c., &c.

The liberal discount of 20 per cent. from publisher's prices allowed to the profession.

Physicians abroad favoring us with orders may depend upon having them promptly and faithfully attended to.

S. H. BURR & CO.,

8 Doors South of the Neil House.

S. E. SAMUEL & CO., DRUGGISTS,

CORNER OF HIGH AND GAY STREETS, COLUMBUS, OHIO,

DEALERS IN DRUGS, MEDICINES AND CHEMICALS.

PURE WINES AND LIQUORS, of all kinds, for Medicinal purposes only.

Particular attention given to compounding Physicians' prescriptions.

Our stock has recently been selected witha great rce,

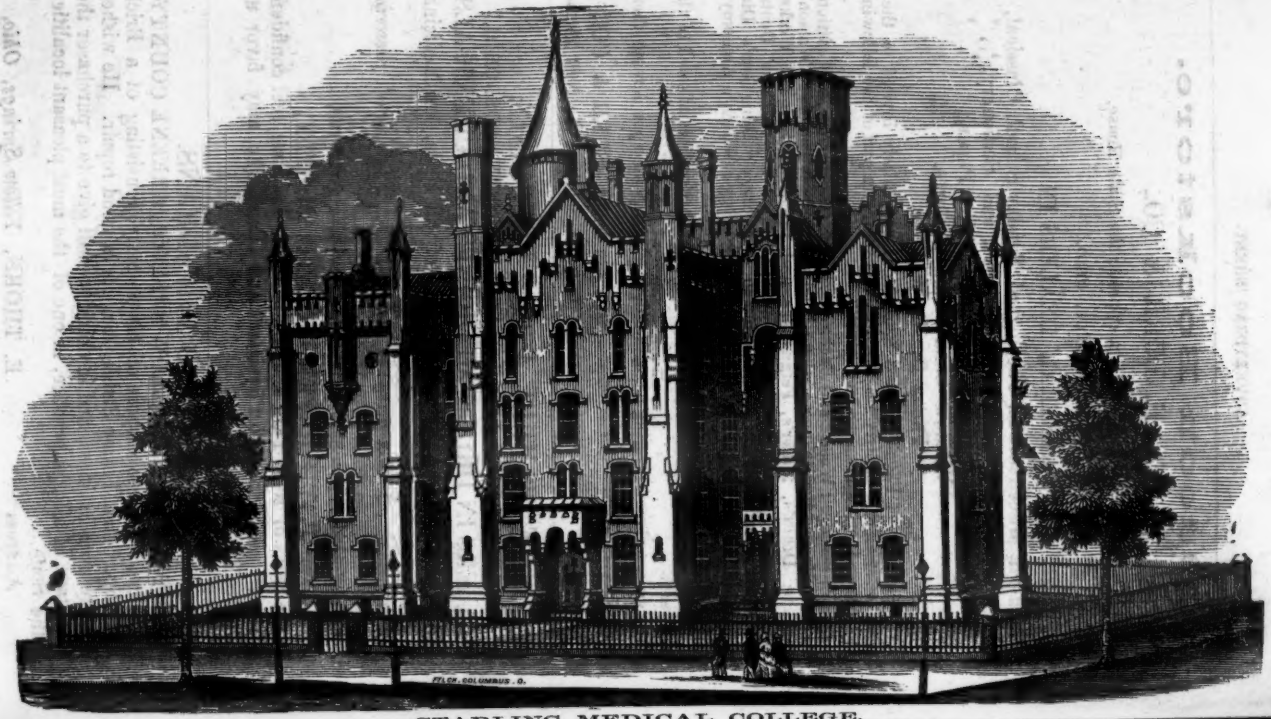
WITH REFERENCE TO PURITY,

In the cities of New York and Philadelphia, and we feel confident will give satisfaction to Physicians and others who may favor us with a call.

NOTICE TO PHYSICIANS.

A PHYSICIAN AT YELLOW SPRINGS, GREENE COUNTY, Ohio, wishes to dispose of his property, consisting of a Brick Dwelling, Office, Frame Stable, &c., all in good repair. He wishes to retire from business, and in doing so will give to a purchaser the advantage of a large practice, in one of the most pleasant localities in the State.

Address E. THORN, *Yellow Springs, Ohio.*



STARLING MEDICAL COLLEGE.